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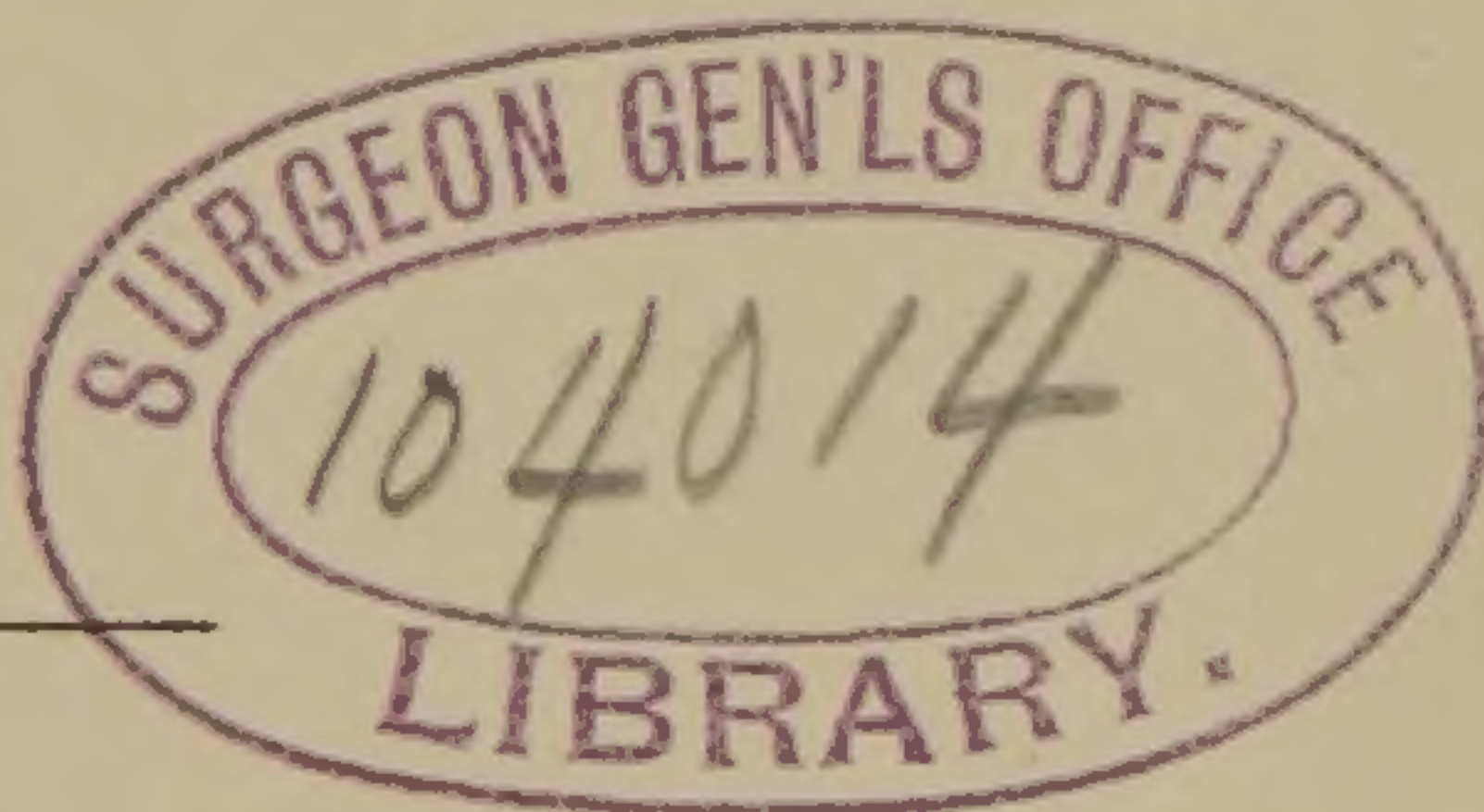
—A—

Pathological and Psychological Study,

—BY—

T. L. WRIGHT, M. D.,

MEMBER OF AMERICAN ASSOCIATION FOR THE CURE
OF INEBRIATES.



COLUMBUS, O.:
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PREFACE.

In the ensuing pages, I will speak especially of Alcohol ; its immediate, as well as its remote impressions, as they affect the integrity of the intellect and sensibilities of mankind.

It has been the custom to contemplate the influence of alcohol upon the Family, upon Society, and upon the State. But I desire to call attention to the modifications imposed by alcohol upon the human constitution. I have, at present, no concern respecting manufacturers or dealers or consumers, merely as such. My business is with *alcohol*, the thing itself, in relation to its more prominent powers and tendencies ; not only with its potential capacities abstractly, but with its active, imperative, and irresistible demands ; with, indeed, its regnant dominion, independent of judgment or will, over the corporeal, and mental and moral intent and movement, of every person under its established supremacy.

My address is to educated and intelligent men and women, the formulators and leaders of popular sentiment. The sober judgment and enlightened conscience of these, will infallibly lead to rational convictions, and decisive resolutions.

T. L. W.

Bellefontaine, Ohio, 1885.

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INTRODUCTORY.

The objects of the present inquiry will be to discover, if possible, the usual and most common causes of alcoholic inebriety ; to determine the pathological nature and associations of the inebriate constitution ; to observe the laws of its dissemination amongst individuals, and of its descent in varying forms through heredity.

Alcoholic intemperance has been an especial subject of attention and animadversion at the hands of two of the great learned professions ; and while it has justly been a topic of unqualified denunciation by both, its true and intimate character has been very differently described by them.

A great many persons, realizing the wide-spread applicability of the fundamental doctrines of christianity for ameliorating the woes and calamities of mankind, have been led, without sufficient inquiry and investigation, to look upon inebriety as simply a form of *sin* ; and like sin in other forms, to be fully amenable to the purifying influences of religion. They believe that the cure of inebriety is to be found in a change of heart, taking place in accordance with the quickening impulses of the Divine Spirit. Un-

fortunately, in consideration of the very great opportunity of the clergy for moral efficiency, this aspect of the subject seems incorrect and misleading. The assumption necessarily precludes the serious employment of other means of relief, than those which are spiritual and religious ; and it is practically a surrender of the whole conflict against intemperance. Unless it can be shown as a matter of fact that the application of religious principles, does as readily and thoroughly cleanse from this sin as it does from the other sins of humanity, the doctrine must be erroneous. On contemplating the innumerable hosts of present drunkards, and the incalculable calamities even now flowing from alcoholism, it must be apparent that religious principles have thus far signally failed to notably diminish the evils of inebriety. Surely there is no fault in the idea of the universal and complete power of religion over sin ; but there may arise the suspicion that religion is not always a direct antagonist to the aptitude for intoxication ; as that aptitude may, not infrequently, contain in its specific nature, other dominating elements besides sin.

Passing from a consideration of the religious sentiment held by many, relating to the nature of inebriety, I will take some note of the judicial or legal opinions on the subject. It will become apparent that, while there are some strong points of resemblance between the doctrines held by the legal and the theological professions, there are also certain antagonisms which are totally irreconcilable. The main point of resem-

blance held in common by them is to the effect, that the inebriate is personally and entirely at fault. The fact that circumstances may exist under which a man may deliberately do a wrong act, and yet not be guilty of anything, seems to be inconceivable to the minds of very many persons. While drunkenness is called by some *sin*, and is esteemed to be a fit subject for repentance, the legal mind insists that it is *crime* which demands the infliction of punishment. If the stand taken by some eminent clergymen is correct—namely, that alcoholic intemperance is in its fundamental nature, truly and only sin, then, there is little or no hope of accomplishing any abatement of its evils by legal intervention. An appeal to the law, or the law-making power, in that light of the subject will be vain. The constitution of the United States, as well as the organic laws of the several states, carefully abstain from interfering with either irreligion or immorality, as such, and in its own proper qualities. It is true, that when immoral conduct eventuates in crime—that is, when it grossly interferes with the personal convenience, rights and feelings of the general public—the crime may be punished by law. But the right to commit sin, or even crime is practically protected by ordinances and constitutions and bills of rights, as one of those precious jewels of *personal liberty* with which legislation must not interfere. The references to religion or morality, usually found in the constitutions of the separate states, are of such forms that insipidity and patronage struggle for the

mastery in expression. The right to worship Almighty God according to the dictates of his conscience is vouched safe to every man. But when interpreted, that means the god of the Hindoo, or of the fetish worshiper, or, for aught that can be perceived, of the devil worshiper, as much as the God of the Christian.

As an example of the real interpretation that is judicially put upon the constitutional questions respecting religious freedom, I submit the following; "The law prohibiting common labor on the Sabbath could not stand for a moment as the law of the State, if its sole foundation was the christian duty of keeping that day holy." So says the Supreme Court of Ohio. (Thurman J.) That law is founded entirely upon considerations of policy and expediency. The very recognition by law of the existence of the Christian Sabbath rests upon the same basis. Furthermore, the practice of reading from the Bible in the public schools was quickly pronounced to be unconstitutional; being, as it was, in opposition to the consciences of certain ones who did not believe in the Bible. All this, and much more, is in the interest of so-called *personal liberty*. And such, while this government stands, will be the decision of the courts of final resort respecting the *rights* of the drinker and seller of alcoholic liquors, or, as long as the inebriate occupies the position of merely a sinful or immoral personage.

Vice and immorality are clothed with legal rights;

and if they are not fostered, they are protected by the organic law of the land. Thus, every man being sober, has a constitutional right to drink alcoholic liquors whenever he chooses to do so. This right does not include the state of intoxication however, although the effect of alcohol is, invariably to produce intoxication. It is a statutory provision everywhere, that drunkenness is unlawful, and that it is a proper ground for punishment. We here discover one of those fine legal distinctions which tend to bewilder and confound the common mind. We perceive that a man has a legal right *to get drunk*—no sumptuary legislation dares to interpose—but he has no right *to be drunk*.

No exception can rightfully be taken to the value of the efforts, both of the legal and theological professions, towards the suppression of alcoholic inebriety. These efforts have only been operative however, within certain bounds and limits. In the nature of things, they must fail in many particulars, to include the whole subject. The profession of medicine desires also to be heard, not in contravention but in aid. There are constituent principles involved in the study of inebriety, which fall, neither within the province of spiritual religion, nor within the utmost scope or power of the law. These principles relate to defects in the building up of the human constitution. They belong to the purview of medical science, and they can be rationally examined and explained only in accordance with physiological and pathological laws.

If it can be shown that the calamities attending intemperance, do not as a rule, come from a state of mind that is natural and healthy, but rather from a mental state that is morbid and unnatural; if it can be made to appear that will, and alternatives of choice are not of necessity, elements in the initiation of drunkenness; if, indeed, it should become evident that blind, and often irresistible *impulse*, founded in disease, may assume the control of conduct, we will have advanced somewhat towards a solution of the problem of human emancipation from the power of strong drink. The plea of personal liberty will not avail, when it is made clear that it is not an exercise of liberty which induces the act of becoming intoxicated, but that it is the remorseless and overwhelming tyranny of disease.

An assault upon the personal liberty of the inebriate, when the claim is, his right to indulge in the habitual use of alcoholic liquors, is fully justifiable in view of the injuries which intoxication invariably inflicts upon the well being of society. The direct effect of alcoholic inebriety is the destruction of homes and the ruin of families. Everybody knows that the family is the fountain whence flow all those characteristics which combine to exalt and confirm every species of virtue and happiness that distinguishes enlightened society. Hence the protest of the moralist and especially of the clergy against the right to get drunk. Drunkenness also destroys the capacity of its votaries to perform daily labor, to become tax-

payers, and to perform military duty in time of public danger ; and it shifts all these responsibilities upon industry and sobriety. Hence the legitimate protest of the patriot and statesman against the right of the inebriate to indulge his ruling propensity. Add to these considerations the teachings of medical science ; teachings which indeed include them all, and it will be apparent that the right to partake of alcoholic liquors as a habit, involves the idea of unquestioned license to destroy the framework of society, and disseminate at the same time a poisonous taint, which will reach the utmost limit and verge of the human constitution.

Enlightened medical science teaches that the drunkard is liable to beget direful and hopeless ills other than drunkenness itself. Some of these are epilepsy, insanity, hysteria, neuralgia and chorea. But inebriety does not stop with the production of the ordinary nervous and mental diseases. Through heredity, it transmits an imperfectly organized brain, whereby the exemplification of the moral nature is hindered, in common with that of the intellectual capacity. Persons so organized may never partake of alcohol, and yet by birth and constitution they are, many of them, criminals in their natural propensities and predispositions.

Let us go a little apart, where the evils of inebriety are shaded off and tempered—and what do we see? One man going through life clutching his fingers in the palms of his hands ; another with jaws firmly set ;

another with strange movements .of neck, or lip, or eye ; another with unnatural voice or articulation ; and others still, with untold moral or physical imperfections and distempers. It is with such phenomena that alcoholism is related, and with which it is often interchangeable. All these, and all such nervous exhibitions are closely interwoven. Whence do these constitutional imperfections come ? What is their nature ? Whither do they tend ? They are problems that can have no interpreter excepting the science of medicine ; and upon its interpretation hang, in a great measure, rational determinations looking to relief.



SECTION FIRST.

CHAPTER I.

Acute Intoxication — Impersonation of Alcohol — Primary Effects of Alcohol — Elation of the Mind — Secondary effects of Alcohol — Repression of Tissue Change — Carbonic Acid and Urea.

There are times when it seems to be necessary, in order to obtain a clear view of its character, to personify alcohol, and speak of it as a sentient and responsible agent. Ordinary food and drink have no distinctive power over the acts, the thoughts, the motives of men. But alcohol operates universally upon the mind and conduct, in a way peculiar to its own nature and with a force that is irresistible. It absolutely takes possession of the man who drinks it, and it assumes the mastery over every trait or capacity inherent in him. There is no more domineering or ostentatious tyrant than alcohol. Indeed there is no other despotic power which arrogates to itself such shameless and undivided authority over its servants. The slave can run away from his master. The prisoner can escape from his keeper. But alco-

hol is the lord of the mind and the morals, the intentions and the acts of the drunkard.

Under the dominion of alcohol, reason is perverted, while morality is blunted and made a mockery. The contingencies of choice or alternatives are frittered away by imbecility of will, into the contemplation of pure and savage selfishness. The motives which should actuate mankind in life, are supplanted under the operation of alcohol by base and unworthy desires; and the proper and honorable employments that should engage the time and attention of men, are thrown aside for the vilest and most disreputable pursuits.

In analyzing the methods of alcohol so as to perceive how these things come to pass, it will be proper to carefully follow in its footsteps, from the inception to the end of its career in destroying human character. And first of all let us observe its primary impress upon the human being, its force and tendency when newly taken into the system.

The discussion of the subject may begin at any one of a multitude of points; for, as I shall have occasion to show, it is a subject that involves, if it does not include all the attributes of manhood, body, intellect and sensibilities; together with all the possible relations in life — pathological, physiological, civil, criminal, industrial, and domestic.

In the interest of order and the natural arrangement of the whole subject, I will first notice in a general way the acute effects of alcohol upon the

body and mind. It will be most satisfactory in this undertaking to observe the immediate alcoholic impressions as they are manifested upon taking a full dose, while in a perfectly sober and normal state.

Accidental circumstances and certain idiosyncracies of a constitutional nature, must be permitted to account for some exceptions; but commonly, a full dose of whisky or brandy—where the alcoholic element of drink is in large proportion—will give rise to symptoms such as follow: The alcohol will seem to inflict a decided shock upon the nervous centers. The vaso-motor system will probably be affected in a sensible manner. The face will often be very pale. This appearance will more likely be seen in the periodic, or truly neurotic inebriate, than in the habitual drinker. The muscles of the countenance will be contracted in a fixed and unyielding position.

The eye will appear bright and glittering, as the universal muscular strain affects the eye-ball, producing a tense condition of the anterior surface of that organ. The movements of the eye will be jerky and sudden; not deliberate and quiet. This also is one of the effects of the general spastic condition of the organism. The mouth will be firmly shut; but likely will be convulsively agitated when a voluntary movement of it is attempted; just as sometimes is observed in a person who is shivering from severe cold. The articulation of speech will appear imperfect; and the individual upon endeavoring to talk, is surprised to find that he is incapable of speaking in his

usual circumspect and natural method. Respiration will be performed with something of labor in consequence of the rigid state of the respiratory muscles. This will become more evident upon an effort to speak at length, when the words will be delivered in a panting and difficult way, as though one was tired with violent exertion. Indeed, there appears to be an involuntary and unpleasant strain and fixation of the whole muscular system, which, possibly without mental confusion, or dizziness, render movements in general, confined and unsteady. There is in reality a state of rigidity affecting the universal motor organization. The contraction of the countenance and the individual features is plain to be seen. While these symptoms and appearances are observed, there is often perceptible at the same time, a shivering or trembling of the body, not unlike the initial approaches of a chill. This phenomenon may be called with truth a nervous chill.

The condition of nervous shock, of which these details are merely the symptoms, is not one that is pleasant to the feelings. It is certainly not this which invites the inebriate to the allurements of drink. Its continuance however, is seldom maintained for any considerable period of time. It commonly disappears after the lapse of a few moments ; or it may be of an hour.

After the alcoholic poison impresses the ideational centers, which it very soon begins to do, additional groups of symptoms become developed. An impor-

tant one of these groups cannot be described more accurately than by giving a delineation of the symptoms of initial mania, as drawn by Dr. Maudsley (*Path. of Mind*, p. 397): "After a precursory stage of depression, of longer or shorter duration, sometimes so short as to escape notice," like the stage of alcoholic shock which is above described, "the patient is often happy beyond measure in the feeling of unfettered mental power, evincing a supreme self-confidence and elation. Natural reserve and prudence are replaced by confident address, by vain-glorious pretensions, by bold and reckless projects. Nothing is difficult to him. He will sing who knows nothing of music; will confidently speak at public meetings, though a public speech would be the last thing he would try when in his natural state; and withal he is sly, crafty and untruthful. He sometimes evinces acute insight; recalls forgotten ideas; makes witty and satirical remarks; puns cleverly upon words; hits upon acute comparisons, and displays eloquence of speech beyond his natural capacity."

A patient recovering from acute mania, and remembering something of his feelings while sick, said to friends: "I then felt so happy; my memory was clear and facile, and nothing fettered my mind." This is, altogether, an excellent description of the mental exaltation to which the inebriate aspires when he invokes the aid of alcohol. The mania of acute intoxication, that is, the true *mania a potu*, soon subsides by reason of the rapid elimination of the alco-

holic element through the several avenues of waste. But this subsidence oftentimes is not permitted to occur. The unhampered mental flow, and the freedom from the checks and hints of the minor and harassing sensibilities and perceptions, are too pleasing to be readily surrendered. Hence frequent repetition of the act of drinking keeps up the coveted excitement.

Here is a good place to pause and survey the facts and surroundings of our subject. We have come to a point where we perceive alcohol is operating kindly and beneficently—if it ever does. The inebriate in this, his first stage of intoxication, is pleased with himself, and with all the world besides. Now is the time that he is generous to his friends and kind to his family. He is bubbling over with pleasure, and radiant with mirth.

Yet if we carefully observe him, we will perceive the characteristics of his master, alcohol, in everything that he does and says. The feline claws of strong drink are not now thrust forth; the paw is yet soft and caressing. The inebriate, in the first flush of drunkenness, is often seized with a consuming desire to appear sober. He takes the utmost pains to impress the idea of his solemn sobriety upon beholders. He even goes out of his way to convince those who, perhaps, would otherwise not have noticed him. Sometimes his plan is to check every appearance of exuberance, and act with calmness and deliberation. The effort is vain. The deliberation is so ludicrously

exaggerated that he is at once detected. His movements are altogether unnatural. His steps are too high or too low; or, they are too long or too short. His body is thrown forward, or thrown backward too much. The poise of his head is unsteady and is suggestive of his true condition. Should he meet a friend, he must blurt out some imbecility which is intended for wit; for the incongruity and grotesqueness of his ideas make thoughts seem very funny to him, which appear flat and silly to others. Should his friend happen to be a lady, an extra effort at a serious and composed countenance will cause his eyes to roll with the insensate gravity of an idiot; while his parting smile, intended to be complimentary and agreeable, is simply the leer of a satyr.

This, and its like, without stint or end, is the state of the drunken man in his best condition, and most pleasing mood.

Alcohol owns every man who touches it, and drives him in its own peculiar ways. The manikin is not more subject to the manipulation of the operator, or the jumping toy to the wound up spring, than is the neurotic inebriate to the behests of alcohol. While it drowns and overwhelms the true nature of humanity, it fills mankind with its own atrocious attributes.

In the analysis of the progressive stages of intoxication, let us carefully examine what next takes place. I have said that the objective point of the alcoholic inebriate is intoxication. This has now been attained; but the rapid escape of alcohol from the system re-

quires a frequent resort to that agent, in order to preserve the excitement induced by it from abatement.

Complications begin to appear. A very interesting and important modification in the state of intoxication begins to disclose itself, from a certain property of alcohol operating upon the vital forces; that property, namely, by which it chemically interferes with the oxidation and waste of the tissues of the body. This complication induces a change in the condition of the blood that is characterized by imperfect arterialization. Blood thus contaminated always acts perniciously upon the brain, producing intense distress and ultimate stupefaction. "We know," says Dr. Chenery (*Journal of Inebriety*, vol. iv, p. 91.) "that alcohol acts injuriously on protoplasm, changing and destroying its chemical integrity, and thwarting the evolution of cells." And again, "alcohol will coagulate the formative material and harden the containing envelope, and retard the development of cells." Dr. B. W. Richardson declares that, "alcohol acts on the corpuscles, causing them to undergo modifications of shape and size, and reducing their power of absorbing oxygen from the air." Dr. Branthwaite, in a paper read in the international congress at Brussels in the year 1880, asserts that the generally received opinion is, that alcohol "diminishes the exhalation of carbonic acid by the lungs, and diminishes also the quantity of urea; showing an insufficiency of tissue change, and consequently a failure to completely ox-

idize the nitrogenous substances of the organism.”

The natural results inseparable from a condition of the brain, such as is oppressing the inebriate in this stage of intoxication, are those deplorable acts of violence and cruelty which are common to the worst moods of the drunkard. The impression caused by the circulation of carbonized blood through the brain is well known. The cerebral pain is agonizing, calling forth groans of anguish from the most stoical; and the inebriate suffering from this cause seldom fails to invite a renewal of the pleasing experiences of his primary intoxication, by drinking deeper still. The consequence now is, that while maniacal excitement is again produced, it is no longer pleasant and agreeable. But, being weighted with the distress derived from the presence of carbonic acid in the brain, and from a system at large surcharged with effete matter, the intoxication takes the form of distracting frenzy; of unreasoning and desperate methods; and discharges its force, as the *mania transitoria* of epilepsy is wont to do, in acts of violence frequently, and of blood and murder at times.

Ordinarily there is not complete extinction of the reasoning faculties; but the feeling of discomfort is so urgent that those faculties are not questioned, and the restlessness and violence of mania are precipitated into action under the pressure of an unmanageable disturbance of the nerve energies.

It has been said that the true disposition of a man is always displayed when he is intoxicated. This

depends greatly upon the particular stage of inebriation in which we find the drunkard. It is, however, one of those half-truths, which, by virtue of the good in it, carries also in it a great deal of latent error. It is a superficial generality which becomes practically inefficient when carefully weighed. For, after the chemical effects of alcohol upon the circulation begin to declare themselves; after the carbonized blood and retained urea sensibly poison the brain, then, of a certainty, all the natural faculties, and sentiments, and idiosyncrasies marking individuality are overborne by the resistless and universal oppression of a new group of poisons, differing widely in their effects from the impressions of alcohol. These secondary poisons, the results of the chemical reactions of alcohol upon the tissues, are the same in all cases. They usurp the place of the normal bias, both of mind and of the affections in those under their influence. Their symptoms, as evinced by the moral and intellectual processes, overwhelm all others. These symptoms present the same unvarying characteristics; and they are always degrading and deplorable.

It is surely improper to consider the drunken exhibitions connected with the toxic influences of carbonic acid and urea to be manifestations of the natural disposition of any person.

CHAPTER II.

Acute Intoxication Continued—New Poisons in the Circulation—Mental Operations Deteriorated and the Moral Feelings Brutalized—Anæsthesia, partial consideration of—Inferences suggested by the discussion.

I have come to another stage in the onward march of alcohol while it is invading and destroying human nature through acute intoxication. The fact that the intellect and the moral qualities of the inebriate, after one or two days of steady drinking, come under the control of certain poisonous forces not solely alcoholic, will admit of no dispute. It is also evident that to escape from the mental and moral supremacy of these superadded and malignant powers is beyond the capacity either of the will or the inclinations. The moral feelings connected with the impression of carbonic acid and urea upon the nervous system, and especially upon the nerve centers, are of a very different quality from those that engaged the attention while speaking of the exaltation of mind that comes when alcohol is first taken into the system. Instead of the soft and gentle caress of the velvet paw, all unarmed, the remorseless rending in sunder of every trait of manhood and bond of affection now goes on, under a power merciless as the claws of a wild beast. The

tiger will spare his own, but the drunken man, thoroughly besotted, oftentimes will not.

The drunkard while under the influence of the secondary poisons which follow surely in the footsteps of alcoholic indulgence, is surly, irritable, morose; is in a mood which impels him to strike or abuse any one of his household upon the very slightest suspicion or pretext. It matters not how mild, how affectionate, or how sympathetic a man may be by nature and when in his sober senses, it is a fact that the drunkard is very likely to be quarrelsome and dangerous when he has come into the morbid, or rather toxic condition now under review.

There is a reason for this conduct quite different from the inborn wickedness to which it is usually ascribed. While not believing that the man drunk is truly of unsound mind in the common understanding of the term, yet it must be confessed that a mind swayed by powers beyond the control of will should be looked upon as, *for the time being*, quite closely allied to the mind which is permanently deranged through organic and lasting disease. A lunatic is not apt to be aggressive unless he is, or imagines that he is opposed or checked. But under a feeling of restraint he will become resentful and raging. The public at large gives the inebriate, as it does the lunatic, his way unopposed, lest some scene of violence might arise. But in his home the drunkard is apt to encounter remonstrance or reproof. If that should be delayed until he is sober, he will probably

take umbrage because of it at his next period of drinking, and then retaliate with fury and viciousness.

Besides, it is true that an intoxicated man has sense enough after all to conceive, to some extent, the disgrace and shame and want he is inflicting upon his home and family. It is an error to imagine that the drunken man is oblivious to the nature of his surroundings. The tears, the rags, and the instinctive fears of the drunkard's family are reproaches, keen and bitter, and, in his periods of frenzy he resents them.

Nothing can be more pitiful, and nothing can more earnestly call for the sympathy and help of humanity than the effort of the wife to appear not to notice the vile state of a drunken husband. The little child, the very baby itself, soon begins, instinctively, to pretend ignorance regarding the crazy antics of the terrible father when drunk.

But I must offer a word or two respecting the relationship between some kinds of insane causes and the causes of drunkenness.

Insanity is very often the representation of a state of mind which is the result of a morbid or poisonous impression upon the brain. Mental acts thus superinduced, not being the offspring of evidence and reason, cannot be directly controlled or their consequences modified by evidence or reason. They can be brought into the normal relationships of life only by the removal of the morbid process, or the elimination of the toxic agent. The mania of

alcoholic intoxication is the outcome of the impression of alcohol upon the brain, and it cannot be controlled or modified to any reliable extent, except by the removal of the alcoholic poison from the circulation. It is not true that because a person in a state of inebriation is comparatively civil to strangers who let him alone and who arouse no remorseful ideas within his mind, he is exceptionally guilty of a mean and selfish tyranny when he is vicious in the midst of his wrecked and ruined family at home.

In considering the phenomena and factors of actual intoxication I come to speak briefly of a characteristic of very great interest and importance. Anæsthesia is the absence of sensation. It is, however, usually considered as either complete or partial. It is an element of intoxication second in injurious effects to no other. It impresses a bad nature upon every grade and every stage of inebriety. For convenience I will speak of all the varieties of impaired sensibility, whether of general numbness or of unnatural kind of sensibility or of partially localized sensibility under the term anæsthesia. In the present connection, the influence that anæsthesia imposes upon the disposition of the drunkard in regard to his personal deportment, will receive attention exclusively; reserving a more extended consideration of the subject as it relates to modifications of the perceptive faculties, and to the question of responsibility, for a place in the subsequent discussion of our topic.

The presence of anæsthesia has a great deal to do with the cruelty and heartlessness frequently displayed in the conduct of the drunkard.

When a criminal has determined to commit some deep offense against human nature itself—as for instance the murder of inoffensive women or helpless children, he seldom finds himself capable of carrying out his design until he has steeled his heart by drinking heavily of alcoholic liquors. Experience has taught him that scruples will abate or disappear with intoxication. Yet he is ignorant that the manner by which alcohol disarms conscience and stills its voice, is through the production of a state of anæsthesia. This condition benumbs his sensibilities and dulls the apprehensions which beset him that the piteous appeals and entreating eyes of his prospective victims might unnerve him.

In the subject of intemperance, alcohol and the ethereal changes made in it by the acids of the system, have the effect to produce pretty well marked absense of sensibility. Now, it is a matter of minor consequence respecting the conduct of a drunken sot, whether he can or cannot reason fairly well in an abstract way as to the impressions of *pain* upon others; the fact is, that since he is not susceptible to ordinary sensibility in consequence of anæsthesia, he has, to some extent, gone out of himself; and his actions will be in relation to his present morbid state, and not in relation to the normal condition of his tactile senses. Such a man will

differ materially from a healthy man. He will act toward others, at least to a considerable degree, as though they were like himself, insensible to pain. Much of his conduct is displayed in consonance with his own insensibility rather than with the average sensibility of mankind. The various hallucinations of certain of the insane, as, that they have swollen to an enormous size, that they float in the air, that they are divided into parts—are due to anæsthesia; and much of the conduct of intoxication may receive an explanation of a kindred nature, without supposing any other special hallucination than might be derived from general incapacity to feel pain. The insensibility to pain implies some defect in the nervous function, which, not only may involve impressions strictly organic, and, in their sphere, of the utmost consequence, but also may possibly involve the accuracy of perceptions and the integrity of one or more of the senses.

It has already been observed that at first the drunkard repeats his indulgence in drink with the object to intensify and prolong his agreeable feelings of elation. Subsequently, however, when the secondary poisons resulting from the operation of alcohol upon molecular changes begin to accumulate and the brain becomes oppressed by them, the drinking habit is redoubled in a species of desperation in the hope that the primal feeling of simple intoxication may become again established. And the truth is that for a brief period such a repetition of the drinking


process does greatly relieve the intolerable distress affecting the head, and at the same time it steadies the trembling nerves and muscles. But this is not really a return to the happy excitement of acute or recent intoxication. The system is now embarrassed with the presence and effects of secondary poisons, and the pure elation arising from the simple uncomplicated action of alcohol is impossible. The partial relief experienced under such circumstances from alcohol must be attributed solely to the benumbing properties belonging to it. These properties relieve the intense headache arising from the presence of carbonic acid and urea, just as chloroform when ordinarily administered would do. But at last, when the alcohol is eliminated, the cephalic distress is worse than ever; because there must remain a still growing and accumulating quantity of the consecutive poisons in the system. And so the inebriate proceeds in his vain endeavors to escape from himself by drinking deeper and deeper, until the stomach refuses to respond in function or retain anything whatever.

Again changes take place. The various emunctories slowly carry off the alcoholic element and the drunkard is left without morbid excitement or artificial strength; at the same time the chemical poisons remain, for the system disposes of these factors of intoxication much more slowly than it does of alcohol itself.

With the departure of the alcohol, the state of

anæsthesia is also removed. The entire system is oppressed with effete material, which produces upon the sensitive nervous organization an impression of misery that is beyond description. The irritability of the prostrate nerves is now excessive. The slightest sound thrills the whole frame ; every sensitive fiber is in a quiver of uncontrollable excitement and morbid apprehension. Nervous sensibility now being restored, the disposition to inflict pain and revel in resentful cruelty no longer exists. On the contrary, the acute redundancy of feeling now reigning is referred to a similar condition of nerve exaltation in others ; and an exaggerated regard for the rights and feelings of the outer world is developed. Any tale of sympathy, or even a train of sympathetic ideas will cause tears of emotion to stream from the eyes. The deficiencies of moral feeling associated with anæsthesia, and which prevented any correct interpretation of the sensibilities of others, no longer exist ; and the morbid exaltation of the sensibilities begets a correspondingly nervous interest for the ills and mishaps of all the world, outside of self. After a few days of rest and remorse the inebriate regains his wonted health and pursues again his usual avocations.

There are properly three classes or groups of persons who are true alcoholic inebriates. The common daily drunkard belongs to one of them ; the daily, or steady drinker—not drunkard—belongs to another ; while the periodic inebriate, the spasmodic drunkard, belongs to the third group.



The daily drunkard, or so-called confirmed inebriate, is often esteemed to be one who indulges his passion for drink simply from motives of baseness, idleness and reckless diabolism. He is believed to be a person devoid of all principles of honor, all disposition to do right or to court respectability ; but on the contrary, he is supposed to be wholly in love and accord with evil from choice.

The man who drinks regularly every day, but seldom or never to excess, the daily drinker who keeps readily and wholly within the bounds of seeming moderation, is viewed with a certain modicum of indulgence. He is blamed mainly in view of the example he is supposed to set to others, and his drinking is probably considered, in a quiet way, rather beneficial than otherwise, brightening and sustaining him amid the cares of business. At the same time he is considered by many a shining light and a demonstration positive, to show that every man can restrain his alcoholic appetite within reasonable limits if he will simply exert a disposition to do so. It will appear in the sequel that this steady drinker is the unwitting father, not only of a dreadful fate, oftentimes, to himself, but that from him especially, through organic nerve changes which eventually become hereditary, springs, not the inebriate and the lunatic alone, but not uncommonly the criminal also.

The third class of alcoholic inebriates, the spasmodic, or periodic, or so-called neurotic drunkard is

a standing puzzle. His remorse when sober, his excess when drunk, the desperation of his intemperance and the solemn oaths of his sobriety confound the understanding. He is the source of more hopes and more fears, more suspense and dread, more admiration and disgust, than any other species of drunkard.

Conceiving the spasmodic or periodic inebriate to be the true type of the drunkard in his essential nature, I will occupy considerable space in describing and analyzing his character and his motives.

From this discussion it will appear at last by inference I think, that all classes of men who are absorbed by an urgent craving for intoxication, including even the daily sot, are dominated in some degree by the peculiarities and disabilities which will be described as especially characteristic of the neurotic inebriate. Imbecility of will and infirmity of purpose will partly explain the unhappy proclivity of many who have been regarded with too uncharitable a censure.

Before leaving the subject of the progress of intoxication as it begins, and continues, and ends, in its usual and uninterrupted form, certain deductions eminently pertinent to it should receive attention. If it should appear that the analysis of the salient points—the several grades of drunkenness—has been made with tolerable accuracy, it must seem that drunkenness cannot be described by a few dogmatic platitudes. Inebriation is made up of parts, each

of deep significancy and of far-reaching application. The incipient and pleasurable mania induced by alcohol simply, is one thing. The secondary complication of superadded poisons, marked by a nervous system depraved in its functions and cruel in its exhibition, is another. And the mental and moral incertitude connected with the misinformation inseparable from anæsthesia is something else.

Under such a state of facts, it is wrong for men to profess to find the solution for the ills of intemperance, in some dogmatism that is totally inadequate to cover the principles involved.

The grand remedy of the Judiciary, punishment, only touches the present inebriate, not the great army of growing inebriates. It only takes note of the person in hand, and not of the potentiality of future generations, through the force of disease and heredity. Truly the power which deals with the personal inebriate to make him "infamous," is wasting its strength against the open sky.

Again, certain legislative bodies, thinking they have found in some one trait of drunkenness, the key to all its traits, proceed to enact laws investing the habitual drunkard with a "guardian"; as though that were a deadly blow to inebriety. This species of legislation has nothing to do towards preventing others from becoming drunkards. It has, and can have nothing to do in preventing the full impulse of inebriety from debasing the intellectual operations, from belittling the moral capacity, and from developing

the criminal constitution in posterity. There would seem to arise, indeed, a suspicion that attention directed to alcohol itself, confining its power, restraining its influence, and, if necessary, throttling its life, might prove of more practical value, than fostering the seeds of woe that it scatters abroad.

It is an undoubted fact, that were every drunkard upon the earth effectually restrained from alcohol; or, if it were possible, destroyed utterly in one day, the next day would show a new host of drunkards forming in array against the fondest hopes of humanity. The original causes of drunkenness are not found within, but they come from without. They consist in diseases, in physical injuries, and in a thousand unavoidable influences springing from the ordinary operations of external nature.



SECTION SECOND.

CHAPTER III.

The causes and establishment of the Neurotic Temperament—Dipsomania defined—The quality of Motive degraded by it—Intrusion of unexpected Mental and Moral perversities upon the state of Intoxication—Intemperance one source of a transmissible neurotic constitution.

In considering the laws and peculiarities that are distinctive of the spasmodic, or neurotic drunkard, it is of the first importance to obtain a clear idea as to what a *neurotic constitution* is. There is wanted, not only an accurate conception of the true meaning of the term, neurotic, as applied to a predisposition of mind and feeling ; but the origin of the neurotic modification in human character, as well as its tendency and associations, are also important topics of inquiry. I will refrain from offering a precise definition of that special constitutional instability of nerve, which so often impels to outbursts of disordered function, either of intellect or body, or of will or feeling ; outbursts which are always positive and aggressive ; conducting sometimes to honor and even usefulness, and again to shame and degradation. I prefer to so treat of the constituent elements of the

neurotic predisposition, that its whole nature will, little by little, become familiar to the inquirer, while its particular relationships with alcoholic inebriety will also be clearly defined.

It will be seen, I think, that the neurotic diathesis is intimately associated with brain inefficiency more or less localized. This defect will be perceived to bear relationship with peculiarities affecting the integrity of the nervous tissue. It will appear to arise sometimes from intrusion of redundant cellular structure upon the true nerve element. Again it will be connected with a shrinkage of the same cellular tissue, which also mechanically impinges upon, and confines the nerve cells. In either contingency there must be deflection and modification of nervous function.

I have said that the neurotic characteristics are connected with structural peculiarities affecting the integrity of the nerve substance. There will be reason to suppose also that functional paralysis, or latency, of circumscribed portions of brain tissue, may at times originate similar constitutional proclivities with those springing from physical injury to the same parts. There will be reason to infer indeed, that the premature and excessive exercise of certain mental capacities will eventuate in irregular development among portions of the nervous centers; so that an unbalanced and unstable nerve momentum may become constitutional.

As yet, the more prominent features of prevailing intoxication only have been the subjects of consider-

ation. The moving cause, the motive power which leads to the establishment of the habit of dram drinking and consequent intoxication, has not commanded our attention. Dealing with the mere drunken state, either by law, or religion, or medicine, will not cure or render inoperative the disease upon which intoxication is based; that is, not directly and evidently. There are several modes of indirection, by which some degree of restraining force may be brought against even the alcoholic predisposition, which will be indicated further on. But these are not fundamental, not always reliable; and they are applicable only in exceptional cases. But the effects of this neurotic predisposition are so deplorable and wide-spreading, that the removal of that sinister influence which leads to a desire for intoxication, is surely of the utmost consequence. Of the various disasters flowing directly from the immediate presence of intoxication, there is nothing that enters into the present discussion, except as these disasters relate to the morbid and unnatural situation of the inebriate himself. It matters not how vital the final results of intemperance undoubtedly are in relation to the family, to society and to the state; their relations even in this wide sense, will give no information that will prove useful in comprehending the essential nature of inebriety. To ascertain with certainty the true cause of the phenomenon of periodic and spasmodic intoxication, it is necessary to approach the neurotic inebriate personally, and inquire what is the nature of that mental

trait, which, being a ruling factor in his constitution, constrains him from time to time to plunge headlong into a condition of alcoholic mania.

The terms, *dipsomania* and *oinomania* are respectively defined by Dr. Dunglison in one feature in the same words. They are said to signify "an insatiable desire for intoxicating liquors." It will be observed that the word *insatiable* refers to the elements of sense and physical appetite, rather than to any emotional or other mental quality. Dr. Maudsley says, speaking of dipsomania: "it is a well-marked form of mental degradation if not of actual mental derangement which shows itself in a fierce craving for alcoholic stimulants." Here, although the depraved mental condition is recognized, still the weight of the definition may be said to rest upon the idea of an overpowering and therefore morbid, desire to enjoy the particular sense of taste which it is a peculiarity of *alcohol* to afford. Indeed, this is a very common view of alcoholic inebriety; namely, a morbid desire to experience the sensual pleasure flowing from a particular modification of the gustatory faculty.

That there exists any temperament or constitutional proclivity which calls, with irresistible force for alcohol, because of its agreeable sapid flavor, is surely an erroneous supposition. There are men, it is true, who are fond of the taste of alcohol, but who very often, are not pleased with its effects, and are not inebriates. On the contrary, it is undeniable that the gustatory sensation derived from alcohol is quite com-

monly disagreeable, and that the greater proportion of impulsive drunkards, those who drink deeply and drink strong liquors, positively dislike the taste of alcohol. They gulp down their liquor hastily, instantly thereafter washing out the mouth and throat with draughts of water.

It would be reasonable to suppose indeed, that a predisposition of such tremendous and absorbing properties as is furnished by the alcoholic temperament could not be put off with secondary, or trifling expedients. The whole mind is filled, at certain times, with the contemplation of an imperative morbid desire. All the resources possible, are brought to bear in procuring the gratification of a pervading and domineering appetite. Such a condition of perverted inclination, will rest content with nothing short of the complete satisfaction of its demands. Any such satisfaction must reflect properties equally powerful and universal with the element demanding it, and also equally morbid. And what can be more universal and powerful than intoxication, or what more morbid?

There seems, therefore, to be a valid objection to the common definition of dipsomania. It would be more exact to call it *an overpowering desire for intoxication*—not intoxicating liquors. This appears to give a better idea of the neurotic state which urges to intemperance; to that constitutional temperament otherwise known as one of the forms of inebriety. When the desire for the state of intoxication in cer-

tain temperaments assumes the mastery, the situation is very different from a desire for alcoholic liquors in the gratification of a morbid sensual taste or relish.

A neurotic call, is of the whole system, not of a single sense. It is therefore stronger than the simple demand of any sense. The neurotic call for intoxication is constitutional, and it involves all the senses. It is also when fully developed, irresistible, because the whole being, physical and mental, is absorbed by it. There remains open no avenue of suggestion through which right reasoning against the constitutional feeling or demand, can be inaugurated. When the desire for intoxication has been gratified and exhausted, the inebriate, at the end of a season of drinking, will ask himself, "Why did I not think of the consequences and objections?" He may say to himself possibly, "Why did I not think of this, or that, important appointment?" "Why did I not think of my own infirmities, my heart trouble or my vertigo?" He could not consider, because, vital as some of these things might be to his happiness, or even life, he was wholly permeated and consumed by the constitutional desire for intoxication. No alternatives were presented, and no choice was possible. An overpowering desire had arisen, without notice and without consent. The resulting spectacle was an exhibition of *impulse*, often irresistible. Will had no voice in the final conduct.

But alcoholic liquor affords the most available, as well as the quickest means of securing intoxication.

It is therefore usually selected as the appropriate agent in accomplishing a morbid and monomaniacal purpose. The choice of means has no relationship with constitutional defect or proclivity. It is truly a sensible and wise choice ; and it is made under the operation of sound reasoning—not unsound. For there will appear reason to conclude that the primary and moving mental defect in the periodic drunkard exists in the feelings, the emotions, the sensibilities, and not in the reasoning faculties. And in the dipsomaniac, the rational faculties are employed, just as they are often employed in securing the demands of maniacal authority, elsewhere ; that is, in following out some irresistible impulse, originating not in reason and judgment, but in blind feeling, or in morbid sensibility. Motive, let it be remembered, goes before reason, judgment and will. It may be strong without being rational. It may be seated in the sensibilities, the desires, the passions. It may be morbid and of disease, as well as of health and strength. It may have relationship with the dark, and tangled and involuntary delusions and hallucinations of insanity, or it may sustain rightful relationship with the fitness of things, both within, and without the mental scope. And the blind and unbidden motive evolved from the organic manifestations and activities related to the mysteries of heredity, is often the sign of a defective and unsound moral nature, founded upon morbid derangement in the human constitution.

Wherever present in a substantial degree, the neu-

rotic temperament demands with irresistible force, through an imperfect or debased mental quality called impulse, that the intelligent mind shall contribute to the gratifications of its depraved and insane proclivities.

Upon considering the habits of recurrent mania, or viewing the characteristics of epilepsy, it will be perceived that it is possible that there may be seasons of mental repose and of apparent mental health, which, nevertheless, under the unconscious operations of organic processes connected with heredity, do give place to periodic mania or convulsions. There is no known reason why the periodic desire for intoxication may not, also, grow out of organic changes, superinduced in the brain through morbid influences or physical injuries, and thence, come into consciousness at indefinite intervals of time. It will appear more clearly hereafter that the peculiar condition of the spasmodic inebriate and his conduct are not the outcome of a base pandering to the demands of mere animal sense. But they are the consequences of a constitutionally morbid impulse to enter into a state of mind, characterized by abnormal properties. And dangerous withal, in consequence of radical defects in mental processes. It must not be forgotten that dipsomania calls for intoxication only while the troublesome situations connected with and following intoxication, must be attributed to certain unexpected and undesirable properties belonging to the agent—alcohol—which is employed in effecting the neurotic purpose.

These complications are superadded to the fact of intoxication, and they are in no wise objects in view when the incbriating qualities of alcoholic liquors are invoked. It thus appears that drunkenness partakes more and more of the recognized qualities of insanity, as the inquiries respecting its nature are particularly and earnestly pursued. Many of its situations are involuntary and uncontrollable.

Not only the body, but the intellect and the sensibilities, together with motive and conduct are brought under a strange power, mighty indeed, but absolutely foreign to the physical and mental and moral laws of the sound mind.

In the investigation of the causes and foundation of the neurotic diathesis, our attention will, of course, be more particularly directed to the special neurosis, *dipsomania*. "The dipsomaniacal diatheses," says Dr. T. D. Crothers, "is only the acute and chronic disease toned down and merged into a predisposition more or less obscure." It is certain that the alcoholic temperament is not infrequently the direct production of chronic intemperance in ancestry. But it must be understood that heredity produces *like*, but not of necessity, *identity*; and, while dipsomania may very likely come from a drunken ancestry, it is also quite probable that the same ancestry may procreate epilepsy or insanity. The fact that epilepsy or insanity may likewise produce dipsomania, fulfills the law of heredity.

CHAPTER IV.

The Causes and Establishment of the Neurotic Temperament continued—The Effects of Bodily Injury in Developing an Unstable Nervous System—Atrophy and Hypertrophy of Nerve Tissue—The Consequences of an Asymmetrical Relation Between the Brain and the Physical Structure at Large.

In discussing the consequences of a long continued use of alcohol upon the integrity of the substance of the encephalon, it will aid in forming right conclusions to be somewhat literal and specific in details.

It is true that the modifications in the structure of the brain, which are due to protracted indulgence in alcohol, are not of the kind which arise from prolonged exercise of the mental faculties, or more properly of the ideational centers. The mental characteristics which are found in the inebriate neurosis are likely to spring from augmentations in the interstitial tissue of the brain. Such interstitial changes are those of increase in the quantity and bulk of the fibrous structure, the neuroglia, of the brain. This implies an intrusion upon the true brain cells and brain fibers, and a consequent alteration in their personality and their functions. And again, this presumes a probable change of a permanent kind in mental

characteristics, which, by the laws of heredity, are liable to be transmitted to progeny.

These facts show that the so-called mental stimulus afforded by alcohol is not of the character of a spurring and exaltation of the natural functions of the brain. An excitement and temporary increase of the normal powers of the mind do not result in a morbid increase of the fibrous structure sustaining nerve cells and nerve fibers, with weakening and ultimate destruction of the intellectual and moral faculties. On the contrary, they brighten, strengthen and intensify mental capacity, while alcohol invariably debases, and hinders, and weakens intellectual enterprise.

Again the insidious influence of anæsthesia betrays its presence by harmful consequences. Although organic sensibility is of different intensity in the several tissues of the physical structures, yet in all of them its presence, in some degree, is necessary so as to conduct in a proper manner the molecular changes of growth and decay. Suspension of this sensibility in the fibrous tissue, a tissue largely vegetative in its nature, leaves it free to increase, uncontrolled by the authority of the organic nervous system. The consequence seems to be that vegetative life predominates, and the fibrous structure grows into a condition of hypertrophy.

The uninterrupted anæsthesia which attends the habitually intemperate, must in time produce its influence upon the whole range of nervous functions.

Absence of use will in the end result in weakening or in abolishing function. Sensibility of all kinds, so long impaired or latent through alcoholic stress, must, by and by, become latent constitutionally. The finer sensibilities of the brain cease to display themselves, and not only is the intellectual, but also the moral nature is blunted. Morality becomes imbecile, dormant, paralyzed. This condition of purely functional disability may also come eventually under the yoke of heredity. Pertinent to this subject are the remarks of Dr. H. P. Stearns. He says: "There can be no doubt that the mind becomes less clear and accurate in its perceptions, and loses, in some measure, the nicety of its moral sense; it does not perceive the moral side of conduct so clearly and definitely as when the brain is free from the diseased effects of alcohol; it does not judge so perfectly in reference to the claims of friends and society; the sense of propriety as to personal conduct becomes obtuse, and ultimately the mind becomes weakened and its faculties more or less impaired."

Thus explanations begin to appear, by which the grossness and cruelty of the criminal may be accounted for, when he springs from inebriate ancestry without necessarily assuming the existence of obvious and sensible disease in his brain.

In the year 1868, Dr. Prosper Despine published a work on "the abnormal, mental and moral manifestations of criminals." A circumstance which

struck Dr. Despine was “finding continually in persons who commit great crimes in cold blood, and frequently also in those who commit them under the influence of passion, a physical condition characterized by the absence of all repugnance while meditating those acts, and of all remorse after they have been committed. * * * There must be something abnormal in the disposition of criminals when they yield with facility to desires which excite the strongest repugnance in a truly moral man, and which most clearly reveals itself when we see no subsequent symptom of remorse for the immoral act.”

Dr. Bruce Thompson, of Perth, Scotland, says: “My conclusions are conformable to those of Dr. Despine. Criminals present a low psychical nature. The moral faculties in great criminals are so feeble that they cannot resist the tendency to crime. In all there is great lack, and in some a total absence of the moral sense.” Dr. Frederick Hill, inspector of prisons in Scotland, and Prof. Laycock, of Edinburgh, affirm that “nearly all criminals are morally imbecile.”

There are several ways by which alcohol may occasion serious permanent disturbance in brain function. One, and by far the most common of its modes of action in this direction is through the operation of its anæsthetic property. This element of the alcoholic impression when applied persistently for a very long period of time, would not fail in establishing an habitual, and at length constitutional

callousness and insensibility in the mental faculties, both rational and moral. This would necessarily be reflected in the moral nature, and exemplified in the moral conduct.

It will not, therefore, be difficult to understand how persons inheriting such a mental and moral constitution can contrive crime without compunction, execute crime without pity, and contemplate its effects without remorse.

Respecting the pathological operation of alcohol upon the character of tissue, and the organic health of certain portions of the bodily system, authorities are not wanting. I will only introduce one or two in this place, as I will resume the consideration of this point in another connection.

“Nothing in clinical medicine,” says Dr. Woodbury, “is more certain than that the continued use of alcohol in even moderate doses stimulates the development of connective tissues all over the body.”

“Alcohol is the most powerful agent we know of,” says Dr. Chenery, “in the production of connective tissue hypertrophy, and thus of fibrous encroachments which must result in atrophy and degeneration of gray matter” (*Journal of Inebriety*, Vol. iv, p. 94). Here is the establishment of a brain defect which must operate as an injury, otherwise inflicted, will act. Besides, defects slowly established, become transmissible to posterity, and the constitutional peculiarities connected with them reappear in some neurotic form.

While it is possible that the alcoholic predisposition may be the outcome of a long course of intemperance on the part of ancestry, this is not the only or perhaps the most common source of its production. Any cause adequate to induce a profound disturbance in the mutual relations of the nerve centers ; anything which, in the language of Dr. J. Russell Reynolds, “ operates with extreme force from without, or by reason of some undue susceptibility within, disturbs the growth of the brain, deranges the relations of its parts, upsets the harmony of its functions, results in an unsound mind.” And anything which establishes a morbid predisposition in the brain to fall into disorder upon the application of slight exciting causes, establishes also a morbid neurotic constitution ; a constitution whose tendency is frequently the development of dipsomania under the provocation of even a slight alcoholic excitation.

The following is a good illustration of the principle under discussion, drawn from life. The source whence I obtained it is of undoubted authority : “ A young priest, early dedicated to his calling, having occasion to undergo an arduous journey on foot during a season of inclement weather, was, with difficulty, induced to partake of a portion of alcoholic liquor. It was his first experience with alcohol. But he never afterwards could repress his longing for liquor nor refrain from alcoholic indulgence. He lived and died a drunkard.” The parents of this man were both alcoholic inebriates. They gave him

his peculiar temperament—his predisposition to neurotic instability. Dipsomania was not developed, however, until its most powerful exciting cause, alcohol, was applied. Perhaps it would never have appeared otherwise, although some form of nervous calamity would most likely have overtaken him upon the casual presentation of favoring circumstances.

Dipsomania coming from a drunken mother is indeed a natural consummation. Alcohol circulating in the maternal system cannot fail to reach the unborn child also; and as the child approaches the period of maturity, the poison certainly produces an abnormal impression upon the forming brain. After birth, and when consciousness is fully established, it is not assuming too much to suppose that alcohol might induce in the child some feeling that would be like a reminiscence, and possibly a pleasing one. Not infrequently, indeed, will the full grown man stop short, and, gazing around, ask in bewilderment, “where have I met this scene before?”. The shadowy reproduction of dreamy half consciousness in real life is, however, most frequent in the young, where the feelings and the emotions are in the ascendant.

A few of the common agencies at work in the production of a morbid neurotic diathesis may be designated. Many of them are obvious. Thus, any profound shock, physical or mental, may found at once a neurotic temperament; as, for instance, grief, disappointment, fright, horror; in short, excessive

emotional excitement, proceeding without the correcting and controlling intervention of reason and judgment. A loss of balance and equilibrium may thus ensue between the essential departments, which together constitute mental unity.

It is a well known fact that inordinate use of any organ of the body weakens its functional capacity. There is first perceived a nervous excitement or erethism; and then, if the abuse should continue, defect in function and even atrophy of structure. In nothing does this principal hold more true than in the over work of the special senses. In communities where the education of youth is most strenuously insisted upon, the employment of artificial aids to *vision* very greatly prevails. In New England this is particularly noticeable, and even in the western portion of the country eye glasses are becoming common even amongst children. It would be better if the actual perusal of letters could be materially abridged. Should the ancient style of teaching through lectures, as employed by the Athenian Peripatetics, become substituted for the present silent and strained study, there would soon be brighter eyes and smoother brows, and perhaps cooler heads than now.

The practice of corporal punishment in school at the hands of a stranger, may shock the nervous system of a feeble and timid child so as to predispose to the founding of a permanent neurotic diathesis. The instances wherein lasting and irreparable disaster

has followed the sudden and violent excitement of the emotions and sensibilities, are innumerable. Epileptic fits, insanity and imbecility too often have such an origin.

Bodily injuries are amongst the most prominent exciting causes of inebriety. Dr. L. D. Mason, in a carefully tabulated statement of two hundred and fifty-two cases of alcoholic inebriety (*Journal of Inebriety*, vol. iv) shows that injuries to the head are more frequent sources of the alcoholic neurosis than any thing else.

In one out of every seven of the cases he reports there had been some injury to the head precedent to, if it were not the cause of the trouble. Again, other severe injuries besides those of the head were observed to hold a remarkably prominent place in the presumable establishment of the constitutional proclivity for intoxication. Of course it cannot be known how many of the whole number of the cases reported owed their presence to injuries received, it might be in a more or less remote ancestry. The loss of a limb, independently of the shock to the entire nervous system, may be supplemented by atrophy of certain portions of the brain. This may interfere with the consensual and attentive correspondence of all parts of that organ in its functional operations. Thus, Sepilli speaks of secondary atrophy in the motor zone, consequent upon the loss of an extremity.

When it is considered that in fact the mind and

body are, in a large sense, one; that mental and bodily perfection consists in the preservation of a natural and unstrained symmetry between the brain and the corporal structure at large, it will readily appear that a grave bodily injury must inflict serious consequences upon the brain. Dr. H. P. Stearns (*Alienist and Neurologist*, vol. 1, p. 471) declares that a want of due attention to the symmetrical development, or rather education of the brain as one part, and the physical body at large as the other part of the whole man, is often an important factor in founding an insane diathesis. "The physical and the psychical should be in harmony," if the best mental work is to be expected.

That such harmony is often rudely disturbed is clear to everybody. The destruction of one of the senses is followed by a brightening of the others. While some mental attributes are in consequence obscured, others are sharpened, intensified. In a manner analogous, it is known that after great bodily injuries of a permanent character, new and remarkable brain adaptations take place. Absence of brain function, correlative with the lost or injured physical member, is followed by atrophy of structure. But it is undeniable that in such contingencies some compensating action is set up in other parts of the brain. It is manifest that in all these examples, whatever may be gained specially, whatever is acquired in artistic genius and instinctive alacrity and intuition, and however beneficial this may all be to

the world at large with respect to particular departments of knowledge and taste, still these advantages are at the expense of the symmetry of the organism. A mind sustaining such relations can never be truly well balanced. What is lost is vital to the equilibrium and stability of the mental element of human nature ; what is acquired is æsthetic ; possibly not practical, yet often of surprising and shining quality, filling the mind contemplating it with admiration.

And so “function increases structure ;” and peculiar traits of character may be “built up by a laborious training in accordance with a law of structuralization of function ;” for, in the functions of the ideational centers “there are vital acts of assimilation of experiences and their structuralization by nutrition.” (*Maudsley, Path of Mind*, p. 495). Thus the new powers may occasion the development of additional nervous substance which may, through heredity, qualify the mental and moral nature of posterity. The order of constitutional brain modification is not here probably the most common, being, as it is, the order of redundancy, or direct increase of structure and associated with compensating disabilities. The usual mode of hereditary change is defect, atrophy, paralysis, and a more or less complete assumption of such defect by the constitution, and its transmission in some form of morbid neurosis to progeny.

But whether the neurotic instability is the outcome of weakness and atrophy of nervous centers, or, on

the other hand, of redundancy in nervous structure and force, the fact remains that the brain is no longer symmetrical. Its balance is impaired and a thousand airy nothings may direct these delicate and wonderful æsthetic mental tendencies into unknown and unexpected ways, and precipitate them into morbid and undesirable associations. Quite likely new peculiarities of mind and nerve may spring up, no longer æsthetic ; no longer invested with mysterious and amazing potentialities. On the contrary, they may exhibit themselves in the forms of neuralgias, bodily deformities, asthmas, epilepsy, insanity, and the terrible craving for intoxication with its inevitable miseries. At the same time the tendency of morbid neurotic temperaments is to assume new shapes and forms, not only in individuals themselves, but through hereditary transmission, thus giving ample opportunity to some special neurosis, apparently associated with desirable mental traits, to assume a different and distressing form as the developments of life take place. A neurotic diathesis, whether of an exalting or depressing character, can never be attended with true happiness. The central idea of the neurotic condition is instability, discontent. The unbalanced mind, the asymmetrical body and brain, is always attended with worry and nervousness, making life wearing and miserable.

CHAPTER V.

The Causes and Establishment of the Neurotic Temperament continued—Disturbance of the Symmetrical Balance of the Nervous System by the Demands of Civilization—Injury Inflicted on Mental Harmony by Overtasking in the Schools—Damage to Nerve Stability by Inciting to Exhaustive Mental Efforts.

Knowing that comparatively few minds are willing to admit that inebriety is a disease, and that dipsomania is a variety of inebriety, I am induced to add further reasons in advocacy of that doctrine. It is vital to the success of the present undertaking that, not only shall it be made to appear that the impulse to drink is commonly the outcome of disease, but that the disease itself is not the result of a voluntary and culpable course of human conduct. In conjunction, therefore, with what I have already advanced touching the causes and establishment of the neurotic temperament, I will offer some other facts taken from the common life of the people, and indeed associated with their most praiseworthy undertakings, which, nevertheless, tend directly and strongly to produce constitutional and transmissible nervous derangements.

In viewing the more prominent causes engaged in the production of that constitutional condition of

nerve instability called the neurotic, the influence of improper mental training should not be omitted from consideration. Dr. J. S. Jewell, in his paper "On the Influence of Modern Civilization on the Production of Insanity," says that there is "too much specialization of nerve function in the pursuits and avocations of life." It is not unlikely, however, that the pursuits and habits of life alluded to are sometimes the consequences of neurotic predispositions rather than the causes of them. "It is a fact," he continues, "that civilization as we find it at the present, carries with it the causes or conditions of decay, or even of its final destruction; it is the nervous system which is to be the chief theater of the ruin with which the race is likely to be overthrown. In highly civilized communities there is a constant tendency to a loss of balance in nerve development in which the sensitive side of the nervous system preponderates over the motor part of the same. All disturbances of symmetry or balance in development tend towards disease." (*Journal of Mental and Nervous Diseases*, Vol. viii, No. 1.)

But the harm wrought by a bad system of mental culture is not confined to the relations of body and mind. It disturbs the harmony and well-being of the mental faculties themselves, and amongst themselves, and brings into existence a condition of nerve instability that threatens the most serious consequences. President Joseph Le Conte in an essay entitled "The School, the College and the University," says

that "the natural order of culture must be the order of natural mental development," (*Princeton Review*, March, 1880,) meaning the natural order of the development of the mental faculties. In other words, and as medical men would say, the order of taking up and pursuing studies should be in strict harmony with and relation to the progressive development of the active powers of the human brain. Nothing can be more reasonable than this proposition.

The question now arises; What is the natural order of the development of the mental powers? On this subject the same authority says that the order of development as regards time is: First, the perceptive faculties, and soon thereafter memory; Second, the imagination and æsthetic faculties — the sensibilities, feelings and emotions; and Third, the reflective faculties. Childhood is the period of perception and memory; youth is the time for the revels of imagination, of romance, of feeling; while in early maturity the higher faculties of productive thought begin to show themselves. To change the form of expression, it may be said that in early life, sensation is the basis of education. Further on, sensibility and the affective faculties are developed. And, in the full maturity of the brain, both sensation and the emotions are blunted; and ideas, logic, abstractions occupy the attention.

Taking these propositions as true, and they are the deductions drawn from innumerable empirical observations, it follows that the higher and more abstruse

sciences should be withheld from mental contemplation, until the brain is sufficiently mature to be able easily to deal with them. Perceptions cannot be grouped, classified, and arranged into knowledge and true science, until, after being thoroughly registered and recorded in the mind and brain, they become the rightful objects of contemplation; and especially the objects of co-ordination, through the operation of the associating nerve centers and nerve fibres, described by Meynert.

The powers of mental co-ordination, belong to a stage of life which is no longer immature. The function of association, besides having much to do with memory, is largely instrumental in the formation of conceptions. It also, when rightly performed, becomes an important factor in the process of determining and arranging the principles which underlie phenomena. Without the process of co-ordination, logic, abstractions, reason and judgment, would possess very feeble and indeterminate qualities. Hence the impropriety of compelling children and young students to engage in studies which are, by their fundamental qualities, in advance of the developed powers of their minds. Abstractions and pure reason are not proper subjects to place before the young and imperfect faculties; any more than the rosy, though unstable and fantastic whims and pictures of memory and the sensibilities, are proper for the serious consideration of the mature powers of the mind.

An inspection of the routine proceedings in the

common schools of the United States will often afford abundant illustration of the foregoing principles.

There is an incessant demand going up, that children at school shall *aim high*. The utmost possibilities of civil and political life, are all the time spoken of as probabilities. *Excelsior* is the motto. The natural capacity, or incapacity of children is ignored ; and as though all were on one plane, all are admonished to “aim high,” which means in reality, aim for the very highest. How must the multitude of children fail utterly ; while disappointment and nervous wreck accompany them, thenceforward through life. Ah ! there are many treacherous paths to the dismal abodes of inebriety, and they are abundant indeed in our country.

In the schools, so common, and so highly prized in the United States, very often, two or three in a class of a dozen or more will be observed to be clearly in advance of the others. These two or three will exhibit preternaturally bright eyes, with a nervous and anxious alertness of manner, and more or less tremulousness of the lips, if not of the universal muscular system. The others lag behind, and it is evident that they are mentally unequal to the task set before them. With their best industry, and the utmost tax upon their powers, they soon discover their inability to master what is expected of them. They fail and become disheartened. The grade of study is too high ; too much is demanded. Those in advance, stimulated by unwise praise are induced to labor on ; while

the halting and inefficient, offended and indignant with the intuitive perception that they are oppressed and overtasked, become sullen and cease to strive. Mark the outcome. The apparently stolid, are the least affected by the forcing, or hot-house style of education. Defeated in the mimic battle of the school-room, their mental energies not having been unduly strained, they are strong and sturdy in entering upon the battle of real life. Their powers, unequal to their school tasks, were not seriously employed ; were surely never abused or exhausted. But the heads of the classes in the childish and early days of school are heard of no more when life's real battle is to be fought ; because in the primal growth of their brain functions, their mental energies, were permanently injured by systematic over-straining. The course of study in the common schools being often in accordance with the highest capacity of the brightest minds, it is too wearing, too exciting to be healthful to the greater number.

When it is said that the nervous and precocious child is no more heard of, it is with the reservation, that if he should come into prominent notice, it will very likely be in some strange aspect, equally undesirable and unfortunate.

It is not so much the business of education to enlarge the mental powers, as it is to train them and render them effective. Development of structure, in the brain as elsewhere, is in relation to the perfection of organic processes ; their purity, simplicity and

freedom from toxic, or morbid, or hereditary complications. But a system of education that oversteps the limit of healthful exercise of the functions of the brain, at once interferes with the physiological process of structural development. It in fact, by exhaustion and overwork, represses and injures the normal activity of the organic movements, in the intimate substance of the neural tissue.

In relation to this subject, Dr. Jewell remarks: "It is my opinion that a very great number of cases of nerve disease are produced, such as cerebral congestions, undue nerve irritability, sleeplessness, or at least imperfect sleep troubled by dreams, headache, various forms of neurasthenia, not to speak of graver forms of disorder—by systematically overtaxing children in our public schools." That is, by an unwise and unscientific oppression of mental strength, and confusion of mental function. Nothing is more discouraging, more blank and meaningless to a child than the requirement, at a time when his mental faculties are as yet unfitted for such work, of some analysis, involving one or more hypothetical contingencies, and demanding as a condition of success the employment of the higher powers of abstract reasoning. Under such circumstances one may talk and explain with the utmost pains and care; the labor will be vain, because the lesson is incomprehensible. It is, if possible, still worse when the faculties first begin to open for contemplating such topics, to subject them to a kind of whip and spur discipline in the

notion of giving them strength, when only exhaustion and neurotic results can possibly ensue. This is simply a process of overstraining and overtaxing. Under the most favorable circumstances it results in exhaustion, and in the probable disasters of an unstable nervous system.

We are now in a condition to comprehend the declaration of a very great authority on the subject under view. "Inebriety," says Dr. Joseph Parrish, "is a disease of civilization, with a chain of causes that include every phase of life." Civilization certainly adds very largely to the sum total of the causes of the neurotic diathesis. It may be said, in concluding the subject, of the various causes, recent or remote, of the production of that unstable condition of nerve which will assume convulsive activity in some disastrous form, upon the application of even the slightest exciting causes, that such nerve instability is not most commonly the issue of an indulgence in the habit of drinking. The irresistible impulse to drink is very often the outcome of a morbid neurosis, established by causes wholly disconnected with the effects of alcohol. While intemperance may produce an inebriate diathesis, it is, after all, a single one of a prodigious number of efficient causes in the establishment of inebriety. The greater proportion of the oinomaniacal neuroses is to be found in those who have received them by inheritance, from the epilepsy, the insanity, the vices and misfortunes and physical injuries of a world long since dead and gone.



SECTION THIRD.

CHAPTER VI.

The abstract nature of the Neurotic Temperament, together with its family kinship—Consciousness impaired by alcoholic influence. Somnambulism a form of modified consciousness.

Having spoken in considerable detail in reference to the founding of a morbid neurotic diathesis—a diathesis known also as nervous instability, predisposition to nervous disease, and otherwise often designated—it is proper to study with some patience, the intimate nature of the neurotic constitution, when once it is fully confirmed. It is also important to comprehend the various relationships observed to exist between the several distinct neurotic forms. A contemplation of these points, is indispensable to the acquisition of a just and complete understanding of the whole subject of alcohol and its effects upon human character. In this way an intimate acquaintance may be made with the nature of the motive power which impels to intoxication; and an explanation and satisfactory comprehension of many of the mental and physical acts of the inebriate can thus be much better obtained.

In the development of human knowledge, it would be a curious undertaking to point out the many important and interesting events, which, being really the outcome of great powers and universal principles, were long held to be of mysterious and inexplicable origin. In many instances, knowledge has been stayed, and progress checked by the readiness of the human mind to rest content with superstitious and silly explanations of rational facts. And in no special department of inquiry has this supine and passive mental inefficiency been more harmful, than in the views commonly prevalent respecting the true principles of inebriety.

It is to be regretted that facts pertaining to the pathological effects produced by certain toxic agents and morbid conditions upon mental states, are even now regarded by many as phenomena of a curious and exceptional nature, rather than as of practical and realistic value. The statistics of crime place the perpetration of criminal acts largely to the account of alcohol; or, more properly, to the mental conditions induced by alcohol. What can be more practical than the recognition and investigation of the obliquity and idiosyncrasy of mental phenomena arising from the alcoholic influence? What can be more proper and beneficial than a careful study and analysis of the peculiar mental conditions, or deflections in mental courses, consequent upon the use of alcoholic stimuli?

As an illustration, I may refer to a case at law which

I had an opportunity of observing. A person was placed on trial for perjury. Amongst other grounds of defense, it was claimed that, although the oath might have been false, the conditions under which the mind of the prisoner was placed were such as to render him incapable of knowing what really did occur; and that hence, he might have been deceived and honestly have sworn to circumstances in the belief that they were true, while in reality they were not true. In other words, he had been drinking alcoholic liquors; and, although he was not stupidly drunk, it was urged in his behalf that he had become oblivious to the actual occurrences which took place soon after drinking; and that, therefore, while his convictions were honest, his conscious mind was so impressed by alcohol that he did not remember facts as they truly happened.

Let it be understood that the point under discussion is *not* whether a person, thoroughly torpid from alcoholic poisoning, as, from the pressure of cerebral congestion, is in a state conducive to forgetfulness. A person so affected can have no true consciousness, either normal or abnormal. He cannot remember; he cannot act at all, unless it is with manifest difficulty and incoherence. But the question is, can a person be so affected by alcohol that, while he pursues a connected and apparently rational course of conduct for a time, extending from a few hours to several days, he may still be without actual consciousness as to what happened to him during such periods of

time ; utterly losing all memory of the facts and events with which he had been connected in those intervals ?

In the trial for perjury above mentioned, I testified that it is possible for certain persons in some minor degree under the influence of alcohol, to live, move, act, talk and do business in a manner which would not readily reveal their actual condition to others ; and yet, after an interval of time of uncertain length they may emerge from a state of abnormal into a state of normal consciousness. They may then discover by documents, or other incontestable evidence, that they have committed a series of acts and lived a period of active existence of which they retain no recollection. It seems fit therefore that inquiry should be made respecting some peculiar mental conditions arising from the use of alcoholic stimulants. Mental operations, as it will abundantly appear in the course of this investigation, are always debased by any modifications imposed upon them by alcoholic liquors. The state of consciousness, as it may be influenced by the action of alcohol, will become the subject of consideration for a short time.

It is a fact that certain persons, when under the power of alcoholic liquors in a degree much short of stupidity and helplessness, being previously under the duress of a constitutional neurotic predisposition, do enter into a condition of morbid nerve adjustment, during the continuance of which they act with seeming propriety and judgment ; and yet upon regaining

the conditions of normal life, after the lapse, it may be of even several days, they have not any recollection of the events with which they were associated in that time.

In illustration of the truth of this proposition, some cases reported by Dr. T. D. Crothers, will be cited as pertinent. An abstract of the reports, containing the important points only, will be given. These cases will be found to cover a large area of investigation; yet they are by no means singular and unique. Observation is daily showing that similar illustrations are more in number and occupy more diversified fields of human activity than has been generally supposed.

Case 1. E——, after pursuing an intemperate course for a series of years, became affected by alcohol in the following way. He seemed not to know what was going on after he had drank for some time; although he appeared and talked in a rational way, he had afterwards no recollection of what had happened. He would lose all consciousness of his present condition and afterwards, when restored to his natural state, he would find that it was an interval of blank to him. In this interval he would transact business, as usual, his friends not noticing anything peculiar. This man died after a few months of some obscure affection of the brain. It is proper to add that he had at one time an attack of delirium tremens, and at another time he had a fit.

Case 2. T. H——, occupied a responsible po-

sition during the war. Becoming a drunkard he went to an inebriate asylum and quit drinking for three years, but upon the death of his wife, he began drinking again. Two or three glasses of whiskey would make him oblivious to all memory of passing events. He would show excellent judgment in business, and gave but little evidence of being under the influence of liquor. He would insist upon the observance of all the social proprieties, and would observe them himself. On one occasion, when drinking in New York, he remembered nothing beyond a certain point. During this period of amnesia he witnessed an assault which ended in a murder. He went before the coroner and testified clearly as to the facts, giving no evidence of his actual condition. Two days afterwards, his consciousness having gained its normal state, he had no recollection of these events, and was unable to confirm his previous testimony. The lawyers believed he so acted to shield the prisoner, although he could have no motive for so doing. His peculiar condition of oblivion still continues to recur.

Case 3. O———, had an attack of alcoholic convulsions after a long debauch. Remained sober for six months. When he began drinking again he found that he could not recollect anything that occurred when he was affected by alcohol even though his potations were not deep.

Case 4. A———, was injured by a shell during the war, remaining unconscious many hours in con-

sequence. He drank, but not with regularity. The impulse to drink would come on him at times with overwhelming power. At length he detected himself transacting business that he could not remember anything about afterwards. At one time he displayed great energy and tact in dealing in cotton and rice, though the magnitude of his operations gave some anxiety to his friends. These ventures proved to be profitable, but he retained no recollection of them when he became sober.

Case 5. A———, injured in the head by a fragment of a shell, became a drunkard; then quit drinking for two years. Afterwards he resumed his habits of intoxication. He was a lawyer. In preparing a case for trial, he drank, but not to excess; but upon going into the court-room, he became oblivious. Thirty hours afterwards, he had no remembrance of what occurred in the trial. During this interval he had conducted the case properly, making his argument before the jury, and writing out a long document in favor of a new trial. The work was all well done. These blanks came and went suddenly. Sometimes a single glass of whiskey would suffice to bring on the state of trance, and sometimes more would be required to produce it.

Case 6. A. H———, whose mother was epileptic, drinks at intervals only. He will become oblivious suddenly and at some unexpected moment, and continue in that condition until he has obtained some sleep. He appears abstracted, and can only write

short articles for a paper which he edits, in a connected manner. Long articles are likely to show incoherence. He cannot recall any hint of what has taken place while in the state of abstraction, although he transacts his routine business tolerably well.

It will be perceived that these cases betray a neurotic predisposition to great nerve instability, upon the presentation of some exciting cause allied therewith. Two were of traumatic origin; there having been wounds of the head received in battle. One had suffered from delirium tremens. Convulsions had unsteadied the brain of another; and still another received his unstable temperament through heredity from the epilepsy of parentage.

The lateness of the time when these peculiarities of the alcoholic impression began to receive rational attention, must be attributed to several causes. The loathing and contempt so often aroused by the spectacle of drunkenness, esteemed as it has been, to be simply an exhibition of moral baseness and voluntary brutishness, have had something to do in repelling scientific investigation. Imperfect opportunities for long continued observation, also have had their share of influence in the same direction. The ordinary observer must be an inhabitant of one and the same community for a great many years, before he can become competent authority on questions of hereditary traits, and constitutional proclivities.

I am acquainted with several instances of abnormal consciousness from the operation of alcohol upon

a neurotic temperament. A person was injured by a blow upon the head while yet a youth. After suffering with headache for years, he grew into manhood, and became a periodic inebriate. His disposition is always radically changed by alcohol; and he can never remember anything that occurs when he is, to a noticeable extent, under the influence of liquor.

These cases cover the ground occupied by the proposition respecting the possible occurrence of oblivious memory under even a slight impression from alcohol. Dr. C. H. Hughes, Dr. Hammond, and other distinguished authorities have observed and reported similar instances of defective consciousness arising from the neurotic diathesis, however that diathesis may have originated.

It is therefore assumed that some particular persons addicted to drink, are liable to become affected with such an impairment of consciousness as will render them insensible to events arising while under the influence of liquor; and this may happen also without inordinate indulgence.

The term impairment as applied to consciousness is here chosen, because the connected pursuit of business seen in the condition alluded to, proves that consciousness,—that mental attribute upon which depends the knowledge that we think, we exist—is not lost, but that it is operating upon a plane different from, and inferior to its normal plane of activity. Indeed the whole mind is to some extent operating

upon such inferior plane, and is, to the same extent operating automatically. Hence the auto-amnesia, the coming and going of the symptom spoken of, that is, the change in consciousness, is sudden and without premonition. It follows that there is no relationship, either through suggestion or association between the abnormal and the normal consciousness. They are separate and distinct, as much so as though they belonged to different minds ; and the events of one state cannot enter legitimately into the consciousness of the other state.

But it is not sufficient to pause here. That such a condition of modified consciousness is possible, might be discovered by the ignorant and casual observer. It is the business of the physician to determine what is the cause, the reason, the mental and nervous *modus operandi* concerned in the development of the mental situations illustrated by the foregoing examples. That breaks in the integrity of consciousness are not confined to those laboring under the toxic influence of alcohol, is demonstrable in many ways. The facts attending the neurotic phenomenon of somnambulism, are often of a kind analogous to those above described. A somnambulist deeply absorbed in his infirmity, is oblivious respecting his waking and normal state, and does not recognize in his morbid fit his whole and complete surroundings, as they declare themselves to his waking senses. The things occupying his attention when in his peculiar neurotic condition, are those strictly allied to some leading and

isolated feeling or anxiety only ; no note being taken of the combined and universal bearings of his environments, such as a mind fully aroused and in normal health would surely consider. In this respect the neurosis of somnambulism may be compared to the driving impulse to periodic drink, which at unexpected times occupies the feelings of the dipsomaniac to the exclusion and extinction of all rational considerations ; as for instance, prudence, economy, health and reputation.

The life of the somnambulist when wholly under the domination of his neurotic temperament, is absolutely cut off from his ordinary life ; and of the latter he has no knowledge or remembrance. Conversely, having emerged from his state of sleepwalking, he knows and can recall nothing of his pathological mental state. Yet, upon a return to the condition of somnambulism, he will evidently take up, and remember, and pursue the threads of thought and action, just where he left them when he last assumed his natural waking life and habit.

This mental phenomenon, in which consciousness plays so conspicuous a part, must be simply an exhibition of a certain neurotic situation ; one in which the nervous centers do not occupy a position of natural equilibrium, one with another ; whether the fact arises from heredity or from some injury, or from a toxic or morbid agency.

This unstable equipoise is manifested in various ways in mind and body. It is for instance transmis-

sible in an interchangeable manner, (or form) from ancestry to progeny. It may also be manifested in an interchangeable manner in the person of any one controlled by active neurotic conditions.



CHAPTER VII.

The abstract nature of the Neurotic Temperament together with its family kinship, continued—Consciousness impaired by causes other than alcoholic—Interchangeability of the Neurotic forms.

So far we have considered imperfect consciousness as an outgrowth of the dipsomaniacal diathesis, under the exciting influence of alcohol. Yet this symptom of mental hebetude is also common as an indication of a neurotic interchange among disturbed nervous conditions which are not related to the alcoholic predisposition.

I am acquainted with a clergyman of learning and ability who some years ago had occasional epileptic seizures. During the space of several years he has not had a recurrence of that malady. Recently he preached a written sermon from a text he had been considering for some time. Upon filing away the manuscript after the service was over, he was astounded at discovering the manuscript of a sermon from the same text, and substantially the same discourse, which he had actually delivered two weeks previously. Of the latter, its composition or delivery, he retains no recollection whatever. It seems to be certain that the previous epilepsy, supposed to have

been cured, really was not cured, but that the neurotic phenomena characteristic of epilepsy, became interchanged with the less obtrusive neurotic phenomena of amnesia; and this change of form was induced either by virtue of medical appliances or by force of the evolutions in vitality which take place in the changes of time. It is entirely probable that periods of impaired consciousness do yet occur occasionally to this gentleman; but not being accompanied by any documentary evidence to attest their presence, they pass away unnoticed either by the patient or his friends. The facility with which the mind follows the grooves of habit as a general thing, would disguise and hide such lapses in consciousness from observation. There is undoubtedly more of this kind of automatic thinking and acting in ordinary life than most people imagine.

Two years after the the above description was written, I had further experience with the infirmity of the reverend gentleman. I received an urgent call to visit him. The first message was speedily supplemented by a second one. I found upon arrival that there was excruciating pain in the region of the pleura. Discovering but little vascular disturbance, and knowing the previous history of the individual, it occurred to me that the pain was the well known neuralgic pain in the side, called *pleurodynia*, and was simply a new form of his constitutional neurosis. The event justified the opinion. The very mildest anodyne treatment quickly removed all pain

and excitement. The patient took the train next morning for a long journey. The freaks of the nervous system of this gentleman, are clearly instances of interchange in neurotic forms taking place in the same person.

In the light of these facts, it is not difficult to explain the frequent "recoveries" and "relapses" of certain of the insane, so as indeed to make half a dozen persons affected with insanity represent three or four times that many recoveries; the truth being that instead of regaining complete mental health there are transmutations for temporary periods only, of the insane forms of morbid neuroses into other less prominent neurotic forms. (Dr. Pliny Earle, in *Alienist and Neurologist*, January, 1880).

Another example involving the subject of impaired consciousness will be submitted, which will suffice to illustrate the fact that defective memory is by no means limited or confined in its pathological relations. A gentleman, an eminent lawyer, had a season of imperfect consciousness apparently in connection with slight symptoms of motor nerve troubles; I found him upon examination to be affected with malarial indications of no very urgent kind. He seemed to be reticent, speaking briefly and answering questions in a hesitating way, and with few words. There was an air of abstraction or mental pre-occupation; but no more than might readily arise from business perplexities.

A few days afterwards, my patient informed me he

had no recollection of my visit ; and upon inquiry I learned further that he had no remembrance of any of the events with which he was connected on that day. He had, he informed me, written a legal document containing several grounds of defense in a criminal case, and had filed certain papers for a client and paid the fees in the office where they were filed. These facts he discovered, or rather detected, by finding his legal document finished, when he sat down, after his recovery, to prepare it for the court ; and by finding upon inquiry at the proper office that the papers intrusted to his care had been placed on file on the day of my visit, the money paid therefor, and the correct change in his pocket-book, out of a bill that had been given him to pay the fees with. This gentleman had previously noticed seasons of instability in the motor functions of one side, consisting of a sense of heaviness in the hand and an inclination frequently to rub it, in order to restore its right feelings and movements.

The end of this case has come. After about three years from the date of the events just described, my patient, while descending a flight of stairs, was stricken with paralysis in form of hemiplegia. He lingered unconscious three days and then expired. He pursued his legal business to the last ; but his intimate friends noticed a progressing mental failure in the last years of his life. The fact is that he was incompetent to take *new business* for several years before his demise. He lived automatically, or from habit only.

The importance of the questions involved, will be adequate reason for presenting an example of the transmission of different neurotic forms in the same household, through heredity. One R—, is personally an inoffensive man. He is a frequent periodic drunkard, and has been from early manhood. His wife is a person of superior physical and mental qualities. Three grown sons are spasmodic drunkards. Two of them have been in the penitentiary; one for highway robbery and the other for perjury. One daughter died at the age of ten years from Chorea. Another daughter, was born with hydrocephalus.

It is probable that congenital malformations or deformities mark the presence of a morbid neurotic predisposition. At the same time, such defects being permanent and fixed, the active display of the neurotic tendencies are, so to speak, locked up in them; they are then and there arrested, and for the time being held in abeyance. It is clear, if this idea is correct, that there is nothing to prevent the transmission of such a neurotic diathesis in other and various forms to posterity. I am well acquainted with a gentleman who is afflicted with congenital strabismus. His children are rather above the average in physical appearance and are unblemished by any visible defect of person. They have also been carefully brought up from childhood, and have been trained to industrious habits. One of the sons of this family is a periodic inebriate; another died from excessive

use of alcoholic liquors; another has been epileptic; while one of the daughters was greatly hysterical when young, and another daughter had child-bed convulsions. Other neurotic indications are perceptible in the younger members of the family connection.

All this, it is true, may be explained upon the simple theory of coincidence. But the probability seems to be, that these disasters were the results of the liberation and scattering forth of neurotic forms held in check and bonds, through the constitutional disfigurement of the common ancestor. Such facts show plainly how different family traits of a neurotic nature, may spring from a common predisposition, and assume sometimes one appearance in actual exhibition and sometimes another.

In confirmation of the principle that constitutional neurotic predisposition is likely to be displayed in the interchanging forms of actual disease, by means of heredity, as well as by substitution of configuration, one for another, in the persons of individuals affected by an unstable nervous system, many authorities may be invoked. Dr. Fisher, of Harvard, remarks: "I have observed frequently that an inherited tendency to melancholia may lead to dipsomania. Of two brothers in the same hospital, one was melancholic, and the other dipsomaniac. The same cause which in one induced melancholia, in the other induced dipsomania." Dr. Maudsley, (*Path of Mind*, p. 488), says: "The condition (dipsomania), is undoubtedly

oftentimes hereditary, or the outcome of a neurotic temperament; some ancestors having suffered either in the same way, or from some other neurotic disorder." Again, as regards neurotic states being transmitted hereditarily in interchangeable forms, the same authority says (p. 108): "Epilepsy in the parent comes out perhaps in some form of insanity; or insanity in the parent, as epilepsy in the child; * * * in families where there is a strong predisposition to insanity, one member will suffer from one form of nervous disease, and another from another form. One perhaps has epilepsy; another is afflicted with severe neuralgia or hysteria; a third may commit suicide; a fourth become maniacal and melancholic; and it might even happen that a fifth evinced remarkable artistic talent. Neuralgic headache and asthma will often be discovered to own a neurotic inheritance, or found one. The neurotic temperament is fundamental, its outcomes are various." Bearing upon this point, Maudsley says further that: "Certain forms of nervous disease in the parents, such as epilepsy, paralysis and neuralgia, strong hysterics, dipsomania, spasmodic asthma, hypochondriasis, and that outcome of a neurotic and feeble nervous system, suicide, may predispose to mental derangement in the offspring; as conversely, insanity in the parent may predispose to other forms of nervous diseases in the offspring." (*Path. Mind*, p. 107). The same authority declares in another place: "The mingling and transformation of neuro-

ses which are observed sometimes in the individual, are more plainly manifest, when the history of the course of nervous disease is traced through generations ; when it is seen how close are the fundamental relations of certain nervous diseases, and how artificial the distinctions between them sometimes appear."

Dr. C. H. Hughes says, in a private communication: "I have often seen one member of a family given to periodic drink, and another to attacks of hysteria, or epilepsy, or melancholia, or more active mania."

As an example of the interchangeability of the forms of the neurotic conditions, not transmitted from generation to generation, but as exhibited by one suffering from a neurotic diathesis in his own person ; that diathesis above described in which the nerve centers are not in equipoise, the following case from Maudsley is in point. "A man seized his child which was in bed with him, and dashed its head against the wall, believing he had seized a wild beast which had risen through the floor to attack the child. His wife's screams woke him, and he was horrified to find that he had fatally injured the child, of which he was very fond. His father and mother both had epilepsy. He was himself addicted to sleep-walking. This case strengthens the opinion of the old writers, who believed there existed a close connection between somnambulism and epilepsy. It is believed that the attack was epileptic in this instance ; but

that the discharge took a mental direction, rather than a motor one." Instead of an epileptic fit, there was mental confusion and brief insanity. The same authority says (*Path. of Mind*, p. 445) that "the epileptic, surly and irritable, imagines that some one is threatening his life; and then, if the fit takes a mental turn rather than a convulsive one, he may commit an atrocious and desperate homicide during a brief period of insane fury."

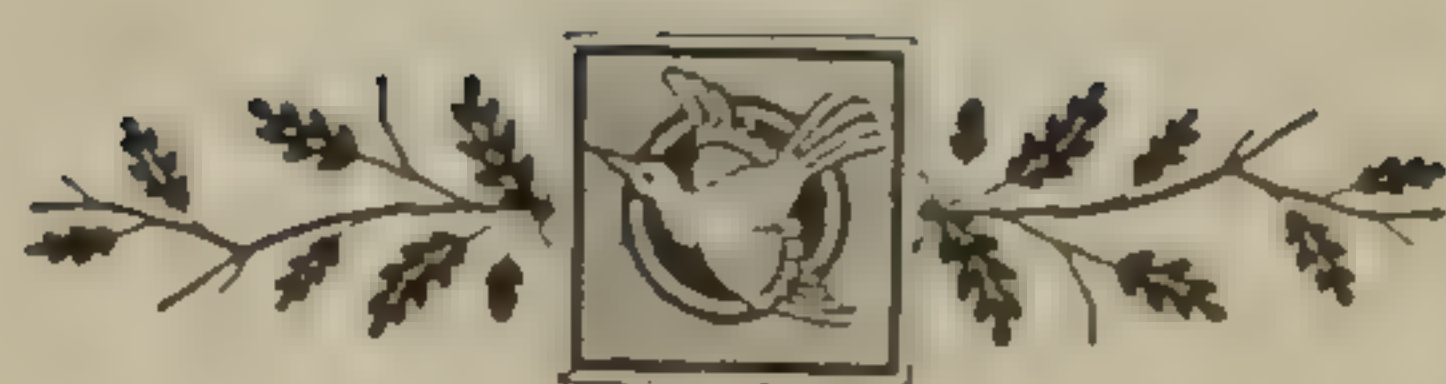
It is therefore easy to trace the changes in form of the neurotic seizures as they display their several characteristics, from the first establishment of the neurotic diathesis—as, for instance, through the reception of injuries by the physical body, and through, likewise, the manifold openings which the evolution of human life affords for sinister influences to operate upon the human constitution. The authorities and illustrations which have been introduced as to the interchangeability of neurotic forms, make clear the possibilities of similar changes arising from the toxic influence of alcohol upon neurotic subjects.

The alcoholic trance—the impairment of consciousness—is far from uncommon after drinking; and it is a condition of mind fraught with danger. Automatic life and conduct, are not held in line by the operation of present and living principles; and are therefore, liable to very suddenly swerve from the path of rationality, under the pressure of unseen and uncontrollable influences.

If there is so ready an interchange and transmu-

tation of abnormal forms when a neurotic constitution is once fully established, what is there to prevent the victim of drink from suddenly entering into some moral or mental condition even less desirable than simple intoxication?

Considering the transformations common to the neurotic temperament, it is reasonable to presume that radical changes do occur in unsound mental forms, and that homicides and other revolting crimes attributed to intemperance, have often been thus inspired.



SECTION FOURTH.

CHAPTER VIII.

Dipsomania in its mental attitudes and relations—The origin and definition of Motive—The Neurotic Diathesis as impressing the nature of Motive—The relationships of Motive with Dipsomania.

In entering upon the consideration of the special neurosis which provokes to intoxication, I cannot forbear noticing an old opinion which is very widely entertained, and often by the best minds, upon one phase of the subject. There are many persons who insist that the dipsomaniac can refrain from alcoholic indulgence, and that therefore, he should be compelled to do so.

The following was lately pronounced by a Judge of the highest court in Connecticut: "We wish to make this doctrine emphatic, that under no circumstances is inebriety an excuse for crime, but should rather be the reason for more severe punishment. We can never hope to reach this evil until the law is administered with more severity." And this sentiment is taken from a sermon by the chaplain of Harvard College: "The only hope of successful treatment of inebriety is to make it infamous, to in-

crease the severity of the punishment and make it more loathsome and disgusting." (*Journal of Inebriety*, Jan. 1884, p, 46).

Preliminary to a further discussion of the subject of dipsomania, I will relate two circumstances happening within my personal knowledge, which have a bearing upon the question of the voluntary capacity to restrain the alcoholic appetite in every instance.

Major W——, a printer, had passed through the civil war with credit as a soldier. He was a man of more than average intelligence. Periodically he was a hard drinker; furious with drunkenness for days, and then sober and industrious for weeks. He made many efforts to abstain permanently from liquor. He was engaged to be married under the condition that he would control his besetting propensity, for a given period of time. Still he would drink and spree, always remorseful thereafter, and pledging himself anew. At last realizing the futility of his endeavors, despairing and ashamed—when sober and sorrowful—he went out to a lonely place in the darkness of night, and casting himself before an advancing train of freight cars, he was torn in pieces.

Another fact: W. L——, was also a soldier during the late war. These inebriates are often soldiers, who have borne the shocks, and hardships, and diseases, and wounds of war. Their nervous powers have been unsettled and thrown permanently out of equilibrium. This man was a spasmodic drunkard.

Becoming a government clerk in Washington, he was peculiarly subject to temptation. Repeatedly and sternuously he would try to break away from the alcoholic habit. He would solemnly promise himself and friends to quit drinking. At length, after an unavailing warfare against a constitutional predisposition, extending over a period of more than twenty years, at the end of a debauch, when all who were about him thought he would soon return to duty, he drew his razor across his throat, and so died. The contempt of the world cut him to the heart ; but his own feeling of debasement affected him still more. The loss of his sense of manhood was too much for his proud spirit ; and rather than brook self-reproach longer, he killed himself.

The “punishment” sustained through the reproaches of conscience was, in both of these instances, far more painful than could otherwise possibly be inflicted. And the “infamy,” burning into their own hearts was infinitely more dreadful to bear than the scorn of the whole world. And when in the end, the time had come that both infamy and punishment irresistibly impelled to action, we behold the spectacle of suicide, not reformation.

This spectacle, if rightly interpreted, teaches a lesson that cannot be mistaken. It teaches that, in the presence of temptation and opportunity, the will of the dipsomaniac is imbecile and helpless. It teaches that dipsomania is really and truly, a form of insanity. It is a disease.

Dipsomania, when aroused from a condition of latency by the presence of temptation, seems not only stronger than any special sense, but stronger than any healthy mental faculty or power. It is uncontrollable.

I have thus far spoken of the origin and nature of that constitutional instability of the nervous system which assumes so many forms, and yet is in many essentials one and the same, and which is the undoubted result of physical modifications of a recondite character.

I will now proceed to the consideration of the various aspects of the special neurosis, dipsomania, in its strictly mental attitudes and relations.

This will necessarily lead to the observance of defects and lapses in mental perfection and continuity. It will also introduce the consideration of moral, and, of course, legal responsibility. And this subject will naturally assume two points of attention: One is the responsibility which attaches to the acts of drunkenness, as that state is viewed with respect to the *motives* which were involved in its inception. The other chief point of view is the responsibility of drunkenness, not as connected with the moving causes of its initiation, but as modified by anæsthesia, constituting as that state does, a leading factor of the condition and character of intoxication.

Anæsthesia has already been the subject of some general observations. It is a topic which will hereafter be still more closely scrutinized, as we inquire

into the extended relationships, and unbounded possibilities of dipsomania. But I will now proceed with an analysis of the subject, as presented in that view of mental defects, in which the moral faculties are the objects of alcoholic influence and modification.

Motive is defined to be : “That which determines the choice or moves the will ; that which incites to action ; inducement ; incentive ; cause ; reason ; principle.” (*Webster*).

I prefer the definition of Edwards, which is much more pointed. “By motive,” says he, “I mean the whole of that which moves, incites or invites the mind to volition, whether that be one thing singly, or many things conjointly.”

Therefore motive goes before will, or volition, as will goes before conduct. There is and must be an initial, a starting point in all mental operations which end in physical action or in mental conclusion. Oftentimes indeed this condition of *ab initio* WANT is unquestionably a constitutional longing for some necessity, uprising in the physical, mental or moral nature, and which is the outcome, or sum total of organic changes in the system at large : just as the feeling of hunger is the result of analogous organic changes. At any rate, motive is a state of mind in some way established anterior to will and conduct.

It must be conceded that sound motive implies healthy body and mind. This further presumes a normal strength of the rational faculties, combined with a right state of the sensibilities. Reason can-

not form a healthy motive without being modified and softened and properly toned by just moral principles. Nor can morality, or religion, as generally interpreted, with all its refining qualities, suffice for healthy and rational motive, unless it is corrected and limited within practical bounds by the purely rational faculties. The moral and the intellectual faculties must not only act in harmony, but they must preserve a just appreciation of the laws and the wants of the environments in order to insure a desirable display of will. The results and objects of mental force are merely the reflections of the characteristics, sound or unsound, of that force. If mental effort, commencing in motive, is unsteady and divided and bewildered, the resulting conduct will truly interpret all these deficiencies.

If, therefore, the motive, the condition of mind or disposition antecedent to, and impelling to volitional activity, is the outcome of a state of constitutional nerve instability or disease, the resulting phenomena will all partake of the nature of such motive. The will and the conduct following from the will in such a contingency, will be lacking in some of the essential properties of perfection.

It is not my intention to claim that bad motives, must of necessity, be the offspring of physical disease. I see no reason why a bad motive may not also be a sound motive, in so far as any questions of a morbid origin enter into the subject. There may be a selfish and vicious sensuality, which is often under

the power of the will, but which is permitted to incite to crime, and deserves punishment. But that there is also a morbid basis for motive, so morbid as to be uncontrollable is, I think incontestible. In those cases where a rational doubt exists as to the inception of harmful motives, there is no human tribunal that can determine between guilt and misfortune, but the law must here give to one accused the benefit of the doubt.

The established doctrine of all the metaphysicians is, that mind always is a unit. No matter what the mental act may be, whether of reason or of sensibility, or of will, or whether of any of the subservient and minor properties of mental activity, the doctrine is that in each and every particular the mind acts as a whole—as a unit for the time being. There is absolutely no difference of opinion among mental philosophers on this point. Without noticing certain modifications to this doctrine suggested by high authorities in mental pathology, I will assume this metaphysical opinion to be correct. What is the inference to be drawn? Clearly, that if the mind is defective in one point, or one department, it must be defective in all. If the motive actuating mankind is the outcome of sound health in all particulars, the will to act in obedience to it, and the various mental steps in effecting the practical behests of it, will all display a sound and regular procession from one point to another—from the first suggestion of the mental want, to its final consummation in

fruition. The line of sequences, mental and physical, will then preserve a natural harmony in all its parts, and will harmonize also with the sentiments of the average minds of men as they view the facts of the case.

But suppose the motive preceding obvious mental activity, is not healthy : suppose it to be the outcome of disease, of injurious habits, of damages to the brain, or the body otherwise, which have become constitutional in their effects ; which in fact have thwarted the growth of just conceptions, and warped the sensibilities of the mind into unnatural and morbid feelings—what then would be the consequences of mental acts flowing from such motive ?

The conduct of men under the influence of motives thus superinduced, would hardly comport with the requirements of sound reason and good taste. In view of the facts and principles applicable to the subject, the presumption seems reasonable, that in a vast number of instances the actual motive influencing conduct with respect to alcoholic drinks is found in the conditions of a morbid neurotic constitutional abasement. The motive to drink in such cases arises unbidden in the mind upon some inward and irresistible feeling ; and this feeling is often aroused by the presence of temptation, appealing to the neurotic diathesis through the senses. In a large class of drunkards we find something of the following nature : First, the presence of the unstable neurotic temperament calling for intoxication ; and, Second,

an urgent mental force incited into activity, demanding alcohol as a means of establishing intoxication.

But the character of the mental power so incited cannot be that of true and perfect will. The state of mind inciting its activity is not sound and normal. It therefore follows that the active force in the present instance is not really will ; but is something subservient or illegitimate, associated with mental defects—such force, for instance, as emotion, instinct, or impulse.

The question as to capacity for refraining from intoxication in dipsomania, may be illustrated by the true history of any case that happens to come under review. The dipsomaniac is certainly affiliated with the insane. Ordinarily he may be shown to be a mere link in a chain of family insanity. I am tempted to give an example or two illustrating my meaning :

T. L——, sank into the lap of a companion, while in a drinking place, and was soon perceived to be dead. He was a rather constant spasmodic drinker. His father and mother are most respectable persons in every way. He had two uncles each becoming deaf as they approached middle life. An aunt is in the insane asylum. This young man was of superior intellectual capacity. His insanity assumed the form of irresistible appetite ; in other words, it became moral insanity. Precisely how this was accomplished will be discussed further on. Another young man, a helpless dipsomaniac, one

H. N., is in an insane asylum. His great aunt died in an insane asylum, and two other great aunts are imbecile. On the father's side there is history of periodic drinking.

These are examples of dipsomania, and not deflections in mind and morals which call for discipline. Here the inebriate diathesis is a symptom, and not a cause, of unsound mind. The capacity for freedom of choice is defective, if not destroyed; and, of course, there arise questions and doubts as to the kind of responsibility that rests upon the periodic drunkard, for drinking, in his sober state, that which he knows will produce intoxication.

Here it will be well to give a hint respecting a grand factor of alcoholic intoxication, I can do no better than to revert to the case of T. L——. There was an undoubted morbid neurosis affecting his family strain. But this neurosis had ordinarily been locked up in a defect of a particular sense. Once only it became general in an aunt, who is an inmate of an insane asylum. In the case of T. L——, there was no fixing of the neurosis in a special sense. There was no indication of intellectual insanity; on the contrary, the rational faculties of the young man were exceptionally good. What do we see? Simply this: an uncontrollable and insufferable *general nervous uneasiness*, making the life of the victim intolerable; unfitting him for the steady and regular exercise of those abilities he really possessed; and denying him the fruits of that mental capacity of

which he possessed the consciousness, without the means of its practical application ; rendering his life inefficient from a nervous system unbalanced in the fundamental particulars of sensibility and of purpose. The finer and more delicate sources of misery—the nervous instability, and the constitutional and morbidly sensitive irritability—find calm and repose at length, through the anæsthetic effects of alcohol. The inborn heritage of lunacy on one side, is balanced by the quieting effects of alcoholic insensibility on the other ; and the call for alcohol is limited and measured by the irresistible and uncontrollable power of universal nervous instability.

There is no intellectual incapacity in the inebriates of the class now under consideration. The want of balance is not in defective intelligence, but it is in the redundancy of nervous irritability. There is a continuous grinding and nagging of the nervous system, which, instead of leading to the contemplation of rational modes of life, do of themselves, precipitate action in quest of help. The judgment and will are not interrogated ; they are in fact unequal to the neurotic demand. It seems that such instances of dipsomania should be classified as a phase of moral insanity. The motive for drinking is not the agreeable and frivolous illusions of initial mania. It is of a far more weighty character. It is the attainment of the welcome rest and repose to a shattered system of nerves, which the anæsthesia of alcohol affords.

I come now to speak of *impulse*. This is a mental

attribute of the utmost importance. It is the instrument of the neurotic temperament, and especially of the dipsomaniacal proclivity. It immediately supplements unhealthy motive, and executes its demands. No word has given rise to more discussion than "impulse," or carries with it a less satisfactory meaning.

The great objections to the idea of *impulse* appear to be, that its existence is an unnecessary assumption ; that the faculty of will, is sufficient for all the executive functions of the mind ; and further, that the quality of impulse, as being *irresistible* in certain relationships, has no foundation in actual fact.

Will is never irresistible. It is subject to the influence of evidence and reason, and may in every instance be possibly changed and modified. But the incitement to conduct which depends upon nervous, and upon brain disease, is not amenable to reason and evidence, and cannot, therefore, in any ordinary sense be controlled by them. There are several names accorded to certain incentives to human conduct that differ materially from the great mental quality called *will* ; such names, for instance, as desire, inclination, instinct and impulse. Many observations might be offered upon the special characteristics of each of these mental offshoots, and the fine distinctions existing between them ; and particularly as portraying the differences between vicious depravity and moral disease. But such discussions are not now necessary. The points covering them

will arise repeatedly in connection with the progress of the general inquiry upon alcohol and its mental relationships. It will, perhaps, not be out of place to further suggest, that while *desire* may be an inoffensive and proper enough incentive to conduct in many instances, it is also probably the incentive which most generally inaugurates vicious and criminal activity ; while *impulse* represents more distinctly that incentive to conduct which has its origin, or motive, in disease. The former is associated in the mind with the idea of a certain meditation and preparation, the latter with unconsidered spontaneity.





CHAPTER IX.

Dipsomania in its mental attitudes and Relations, continued.

The origin and definition of Impulse The Neurotic Diathesis as impressing the nature of Impulse. The relationships of Impulse with Dipsomania.

Believing that the term impulse more clearly than any other designates the power which compels the constitutional inebriate to drink, I will endeavor to give a comprehensive idea of its nature and scope. A few introductory considerations will aid in simplifying the discussion of our topic.

The thoughtless prescription, or the inconsiderate tender of the alcoholic cup, should not be held responsible as though establishing the dipsomaniacal diathesis. The responsibility in such contingencies is confined to the act of animating a diathesis already present, but as yet, latent, in the constitution. For the establishment of a habit of alcoholic indulgence is to be attributed very often, to accidentally arousing a slumbering neurosis.

Could it be ascertained with certainty where the alcoholic diathesis is implanted, many of the dangers which now spring from an indiscriminate use of alcoholic liquors, might be readily averted. But it lurks

often in the most hidden and unexpected places.

The predisposition to drink having become operative, will assume one or the other of two phases. It may be spasmodic (periodic), and truly impulsive; or, it may be continuous, with or without serious intoxication. To the periodic form, the present inquiry is for the time being limited. A consideration of the continuous form is reserved for a place hereafter.

The dipsomaniacal activity displays itself in periodic intoxication at intervals of longer or shorter duration; these intervals are complete and free from any desire for alcoholic indulgence, while the feelings and appetites otherwise are in a healthy and natural state. The intervening periods are of different lengths in different persons, and, indeed, in the same person. In this respect the impulse to drink assumes some of the features of epilepsy. As the fit is sure to come on sooner or later, so dipsomania will intrude itself in active form at certain periods of time. True, one or another consideration, either affective or rational, may retard the culmination of the neurotic stress at particular junctures of time and circumstance; but the determination of the morbid neurosis will in the end assert itself, and the victim of dipsomania will bow to the importunate demands of his constitutional diathesis.

The question may be asked: if a mind can restrain itself for a time, cannot it forbear altogether? It is certain that the unquestionably insane can often, in the pursuit of a favorite purpose, refrain from the

manifest exhibition of lunacy for a considerable time.

The spectacle of a lunatic "stifling his disorder" is not uncommon in asylums. Yet to claim that such a fact implies the power to control insanity absolutely and at all times, is, in the face of experience and the sensible morbid degenerations of brain tissue, unreasonable.

Besides it should be remembered that in dipsomania, the constitutional proclivity to intoxication exists in different persons in varying degrees of intensity. Hence in some instances, the power to refrain, not being wholly overborne by disease, can be enforced. Still the truth seems to be this: Sometimes a motive may come into action, antagonistic to the dipsomaniacal diathesis of such transcendent force and majesty as to overcome the constitutional proclivity for a short time. Such motives, are oftentimes, domestic afflictions, such as death, or insanity; or some religious impression; or again, remorse, from the contemplation of the ruin and despair of a drunkard's home; and many other moral and emotional principles may interfere, between the neurosis, and its reflection in actual life.

But the trouble respecting permanent abstinence in those afflicted with a constitutional predisposition to alcoholic intemperance lies in well-known principles of mental activity. It is an established doctrine of philosophy, that the mind is incapable in its sound state of resting under excessive emotions for any great length of time. It will be perceived that the motives for forbearance, indicated above, are all of

a moral or emotional nature. It is the doctrine of rhetoric that the ideas or emotions of the sublime, the terrible, and the pathetic, must be raised suddenly, and be quickly let down, trusting to the imagination for the fruits and consequences. Thus also, the dominant and superlative motives, which for a time antagonize the impulse to drink and overwhelm it, are, by the very violence of their own nature, temporary and evanescent. The passage of time assuages grief, and dulls the scruples of conscience, and sheds a pall of forgetfulness over the most violent emotions; at the same time the constitutional defect, calling for intoxication, remains, in most cases, through life. Local and temporary impressions and interests may, therefore, for a brief period, restrain the outburst of the constitutional predisposition, but they are powerless to prevent it in the end.

Whatever motive or emotion that is strong enough wholly to absorb the attention of the mind, must restrain that mind in its own interest as long as the attention is held by it. But upon the removal of the dominating mental force, the ruling neurotic power of the constitution will resume the mastery.

Opposition has been made to the term, *impulse*, as applied to mental exhibition. It is true that this term presupposes the paramount morbid activity of the emotional nature in a specific direction. It has been applied to many of the mental phenomena of hysteria, as well as of other neurotic displays. Still, Dr. Bucknill objects to the term, and remarks in his Lum-

leian lectures upon the responsibility of the insane mind : “This term, impulse, is a word which darkens knowledge, and its use seems wrong and misleading.”

This *dictum* of Dr. Bucknill's is not held by him alone. There are other eminent alienists who are of the same opinion. But it appears somewhat inconsistent with several written opinions of the doctor. Lord Westbury, having claimed that insanity is merely an independent state of mind requiring moral appliances, rather than a symptom of some internal pathological condition, Dr. Bucknill proceeds to criticise his lordship's position as follows: “It is not that medical men have imagined external things to be the indices of things unseen, but that they certainly are the indices of things unseen ; and that all men, whether they be medical or legal, ignorant or expert, must, in questions of insanity, accept them as such, unless it can be shown that a state of mind can itself be seen.” Alcoholic or dipsomaniacal impulse is an index of “things unseen.” It is not a simple and independent property and power, subject to moral influences or to modifications through persuasion and evidence. It has for the chief condition of its activity and even existence, the precedent, the motive state, of unstable constitutional nerve predisposition. Of the presence of such a morbid diathesis, it is the index ; while it also is its instrument, and partakes of its nature. “It is impossible to conceive,” says Dr. J. Russell Reynolds, “of a sound and un-

sound mind existing at the same time in the body." Impulse is one of the symptoms of a profound constitutional taint, and as such it is a proper subject for consideration and remark.

"An unstable condition of the nervous centers allows action upon impulse, starting from sensation, which a better state of nerve nutrition would have enabled the individual to resist," is the language of Dr. Reynolds. The "unstable condition" of the "nerve centers" being present, some sensation in affinity with the character of the neurosis will tend to arouse the latent morbid force into sensible activity. Such a "sensation" may consist, in the recurrence of some perception received in the past life and presented to the attention by the powers of imagination and memory. Or, in the case of the neurotic inebriate, it may be the signs and devices about the drinking establishments which waylay him in his usual walks and avocations.

In the year 1850, cholera prevailed in Cincinnati and vicinity. One G——, a tailor living there, a mild-eyed, gray-haired man, quiet and feeble and strictly religious, was troubled with some derangement of the bowels. He was nervous and frightened, and I recommended him to take a little brandy occasionally. To my surprise and the indignation of his friends, he proceeded to indulge in a drunken debauch, unlimited in violence, and apparently in duration. After the mischief was done, I was informed that many years previously he had been a reckless and excessive drunkard.

These facts are recognized by the proprietors of drinking resorts. No effort is neglected which will appeal to the appetite through the imagination of the inebriate. The very names given to dram shops, and the signs of brightness and cheer within them, are intended to seduce and allure. The wavering desire of the morbid diathesis is strengthened and confirmed; while the feeble struggles of good resolutions are promptly smothered by the sudden arrest of the attention through these devices. That being once accomplished, the ruling neurosis of dipsomania is free to resume once more, complete control of mind and conduct.

Appropriate to this subject are the remarks of Rev. Dr. Blaikie, of Edinburgh, who declares (*Princeton Review*, July, 1878): “ ‘Of all the hindrances to evangelization in Scotland, the most terrible is that presented by the traffic in strong drink. There is something actually pathetic in the fact that by the arrangements of the authorities, where virtue is frailest, the snares for its destruction are most thickly set; where people have most need to pray, and do pray ‘lead us not into temptation,’ the guardians of the public safety take care that at every street corner and at almost every second door, the ‘temptation,’ from which they have need to be delivered, shall present itself in its most enticing form. The transparent fallacies by which this is often justified, are discreditable to the heads and hearts alike of those who use them. They say that if people have the de-

sire to drink it is all the same whether it is to be got within ten yards of their doors or twenty. Whereas, to many it is the perpetual sight of drink that kindles the desire for it. 'I could resist five public houses on the way to my home,' said a man, 'but I cannot resist twenty.' " Dr. Blaikie does not fail to notice the grand rock basis of all this disaster. "The enormous extent to which the national revenue is derived from the sale of drinks gives the government of the country an interest in providing facilities for its consumption." A pecuniary interest, of course; an interest, the extent of which depends upon the amount of wreckage performed upon human character, human happiness, and upon personal and domestic peace and prosperity. For, the proportion of the liquor profits belonging to the government being substantially fixed by law, the extent of the government's interest in the liquor traffic is practically in the direct ratio of the degradation, want, and despair inflicted by alcohol upon the victims of disease.

Living upon the western frontier for some years, I there became acquainted with a "mountain man;" a person employed in the service of the American Fur Company. This man, when he came into the settlement, was a drunkard. While recovering from the effects of a spree he told me that he had engaged in the business of trapping solely to be removed from the temptation to drink; that, when he was within the reach of liquor he could not resist the impulse to intoxication. He had no serious craving for alcohol

while away in the mountains. He knew it could not be obtained, and his appetite was not aroused by contemplating the subject of drink. The plans to which the inebriate resorts in order to cheat and overcome his appetite for liquor are innumerable, and they are known, as a rule, to himself only. But they demonstrate his weakness and the imbecility of his will in the direction of his proclivity, while they also prove his anxiety to escape from the galling yoke of his morbid predisposition.





CHAPTER X.

Dipsomania in its mental attitudes and relations, continued.

The operations and characteristics of impulse further considered—When impulse may be irresistible—Dipsomania introspective in its nature.

Impulse should be viewed in all its possible aspects, and in all the varying relationships it is capable of sustaining. If there is a particular field of action covered by impulse, and which belongs to no other mental attribute, that field should be surveyed and its limits determined.

That some abnormal condition of the affective faculties should be present in order that a display of impulse can be made a possibility, is an undoubted fact. In the spasmodic inebriate the affective or emotional sensibilities are so strong in relation to intoxication that little or no appeal is accorded to reason. The perceptive faculties are not denied a passive existence. But the power and activity of the neurotic feelings are so great that they occupy the entire field of action, and the reasoning faculties remain, with respect to the morbid predisposition, in a quiescent or consenting state.

When some sensation or recollection of past sensations awakens in the true dipsomaniac a sudden impulse to drink, it is overwhelming because the impulse thus aroused suffices to inaugurate a line of conduct in harmony with it, without calling into activity the reflective powers; and reasoning on the subject does not take place.

It cannot do so. The consequences and circumstances attending or following sound reason, are in no way related to the object sought to be attained by a mind laden with the dipsomaniacal pressure.

The aim of the active dipsomaniacal neurosis is one thing—and that only—*intoxication*. Now intoxication may be sought by the defective constitutional proclivity, for one or the other of two objects. It may be the pleasing, but frivolous mental pictures afforded by the incipient mania of recent drunkenness; or it may be the lethal influence of alcoholic anæsthesia, in response to the agonizing cry of a hereditary, or constitutional neurosis, for mental rest, for forgetfulness. But what has intoxication to do with environments, or with reason, or reflection? The field occupied by intelligence and rational life, with their duties and responsibilities, is very different from that occupied by intoxication and its consequences and concomitants. They are wholly different and disconnected. The bad, the defective, the neurotic, is served by a kindred mental attribute, *impulse*, while *will* waits upon, and executes the mandates of mental life, and light and perfection.

The neurotic propensity to drink, does not calmly scan the consequences and attendant circumstances; but in the form of an emotional impulse it binds the will, rendering it no longer free (as relates to the alcoholic appetite) and gives its own character to conduct. The ideas of Dr. Reynolds on this subject seem to be correct. "Every person" he remarks "has at times felt impelled to do or say something which he has avoided doing or saying by a moment's reflection." He also speaks of those "strange emotions" (strange because morbid) "which often conflict with thought," in regard to life and motive. (*Legal Tests of Insanity*, p. 17). The class of emotions here alluded to is the legitimate production of a constitutional aptitude, of limited scope, but of positive qualities. This mental trait is as unerringly and decidedly operative as are those recondite organic principles which determine the shape of the nose, or the cast of the eye, or the "cowlick" in the hair, that distinguishes the personality and the constitutional peculiarities of certain families. It would be as sensible to give a dose of pills or apply a plaster with a view of changing these indelible indices of family kinship as it would be to endeavor to effect a fundamental change in any other constitutional neurotic predisposition by analogous appliances. The same principle is common to both contingencies. The physical peculiarities denoting family or tribal kindred, betray, to no small extent, a neurotic diathesis, which is, however,

disguised, or held in bond, through the substitution of the characteristic "family mark."

There is no doubt but impulse may be in many neurotic persons imperfectly developed. The neurotic constitution must exist in varying grades of perfection or completeness. This implies an infinite number of instances where *will* is unreliable, and *impulse* is of variable quality. But I speak of positive and finished properties only, and not of doubt, and uncertainty, and compromise.

The question may be raised: Can an impulse be so urgent that it cannot be conquered by will? In the light of the doctrines already advanced it would appear that impulse and will cannot come into opposition directly. The two mental principles operate upon entirely different planes and cannot in their perfect forms ever become antagonistic. Impulse has been described as the outcome of disease, fixed by the organizing processes of heredity in some person, or some family, or tribe. Will, in its true character and right strength is the outcome of good health; all the powers and departments of the mind which are precedent to the exhibition of will, must be in excellent health and good working order. The circumstances and laws bearing upon impulse and giving rise to its exhibition are those of morbid characteristics, and they have no relation to the reflective faculties, or even to the normal sensibilities; neither are they amenable to the authority of reason or proof. The laws which bear upon the regular and

complete application of the will, are of a nature which demands a direct relationship between the initiation of conduct and the rational and emotional faculties, and they are always in subjection to reflection and judgment. Judgment, in truth, is immediately precedent to will.

It is not presumed that impulse can never be modified or even altogether thwarted. But this is not affected by the operation of the will. I am now speaking of impulse and will in their perfect and well defined forms. To overcome an impulse the attention must be removed from the objective point of the impulsive determination. This requires a force, not slow and deliberate, but violent and sudden; and the fact remains as heretofore intimated, that when an impulse is overborne it is by the substitution, generally, of some stronger impulse, and not by an exertion of the will.

There is an insuperable objection in a great many minds to the idea of an impulse possessing, under any circumstances, the quality of irresistibility. Although the discussion has already covered the main problems involved in that question, there can be no impropriety in questioning authorities on the subject.

Dr. Fordyce Barker in the Guiteau trial, defined irresistible impulse as follows: "Perversions of emotions to such a degree as to produce a conduct entirely at variance with the individual's former life, and to such a degree as to completely control will power, would constitute an irresistible impulse." It

is the verdict of the best authorities, that impulse does not come from reason and judgment. "Good impulses," Maudsley asserts, "comes from good feelings, bad impulses from bad feelings." It is the doctrine of Comte, that, "impulses to action, come, not from the understanding, but from the feelings." The former authority says furthermore, that "stress of function might be no more than normal to a powerful and well regulated mind, but would be fatal to the stability of an ill regulated mind in which the feelings habitually overstay reason."

When we consider that the affective sensibilities, the feelings, the emotions, are very often indeed, utterly uncontrollable, it is not difficult to conceive that an impulse derived from such sources, might also be uncontrollable and therefore irresistible. Conversely, reason, judgment, testimony, are never unmanageable, but they are calm and susceptible of change and modification. So will, the outcome of these mental qualities, partakes of their nature, and never can be irresistible.

These principles are directly applicable to the desire for intoxication which arises through the feelings and emotions connected with and growing out of the dipsomaniacal diathesis. The neurosis imposes an imbecility upon the will in the direction of a single, but powerful appetite. In the language of an eminent authority: "it would be as easy to argue away a temperament, as it would be to reason away the outcome of that temperament." This strong language

would be strictly applicable, however, to those cases only where the morbid predisposition is of a settled character; and the demands of the temperament are so urgent as to supercede the judgment and will.

Dipsomania is essentially introspective in its nature. It has no sympathy or interest with the world of relation. Things pertaining to matter and mind never enter into the sphere of its activity. Rather, it seeks the repose, the idleness, the insensibility of *self*. Its motives are based upon these qualities, and its impulses are selfish and beneath the influences of common and rational life.

Ordinarily the mind of man is alive to the impressions of external nature. They are its delight and solace. Mental operations are performed with careful regard to them; while they in turn, incessantly and forever, change and modify will and conduct.

Well marked cases of periodic inebriety are incapable of voluntarily refraining from the use of alcohol.

But generally the public are not of this opinion. They believe that the inebriate can, if the fancy pleases him, refrain at any time. This sentiment is largely shared in by the drunkard himself; and in fact, this opinion, often expressed by him, gives plausibility to the idea that drunkenness is always persisted in from a vicious indifference respecting the consequences of intoxication, rather than from some over-riding principle of necessity. It is very common to hear the inebriate declare that he can refrain when he chooses to do so; and this is

literally true. But it is a long time before the neurotic drunkard discovers that, although he can refrain when he chooses, the time never comes when he is able to exercise the power of choice. His will is helpless in the presence of temptation and opportunity.

There are facts occasionally appearing in connection with the neurosis calling for intoxication, which seem to antagonize the idea that the alcoholic predisposition is ever absolutely irresistible. Chronic drunkards sometimes reform and never again indulge in liquors. How is it that the established habit of intemperance may be overcome, while the same habit in its earlier stages is uncontrollable? One answer is, that a law of heredity may become operative which accomplishes the fact. "No man knows of a certainty, his own character." No one can say with perfect confidence, what traits in mind and morals the process of evolution may bring to the surface as life progresses, — what characteristics, which, in their due season, may represent some peculiarities or idiosyncrasies of remote ancestry. Neurotic temperaments may change, one for another, sometimes in the same individual; so that it is possible for the predisposition to intoxication to be replaced by some less obtrusive neurosis. In that event, while the publicity and offensiveness of drunkenness disappear, it may not always be easy to recognize its successor, even though it is truly established in place. The clergyman heretofore

noticed, whose epilepsy disappeared, was supposed to be freed from neurotic trouble; and although there is no doubt that periods of neurotic trance with impaired consciousness were not uncommon with him, yet it was reserved for the preservation of a written sermon, of which his memory gave him no information, to detect the fact, that the epileptic neurosis was not extinct, but was changed into a neurosis of different form.

It is not impossible also, that the passage of time, introducing new family traits, may eliminate at some stage in life, the predisposition to intoxication without the introduction of some other constitutional characteristic. Hence some violent moral or emotional impression, some religious or temperance revival for instance, may occur and find a drunkard who, from mere force of habit, keeps up an intemperate course of life, and may overcome a *habit*, no longer enforced by neurotic stress. Something of this kind may be occasionally seen in the strange recoveries of bed-ridden people who, at first suffering from the real disease, have become the victims of imagination after the pathological conditions have departed. Thus the sufferer from chronic rheumatism may be healed by the application of a pungent mental or bodily shock. And it is not uncommon to see the helpless hystero-cataleptic rise up, and go about her business under the influence of a powerful religious impression.

Again it sometimes happens that a person will

take to hard drinking in middle life, who previously had no desire for intoxication. Here we perceive the establishment by neurotic interchange, of a diathesis which pertains to the family strain, but the development of which belongs to the constitutional changes inseparable from progressive existence.

These apparent exceptions aid in establishing the proposition that the predisposition implanted in the constitution calling for intoxication, and for, in a subsidiary sense, the indulgence in alcoholic liquors, belongs to the great family of neuroses which are interchangeable, one with another.

It is therefore a fact that while habit is strong, a predisposition is stronger, and the family or tribal constitution is strongest of all.



SECTION FIFTH.

CHAPTER XI.

The effects of Alcohol upon the brain of the inebriate—
Paralytic Dementia—Hypertrophy of connective tissue
with Intrusion—Contraction of connective tissue with
Strangulation of Capillaries—Degeneration of nerve cells,
and rupture of nerve fibres.

I now change the scene and the topics of the investigations and inquiries respecting the influence of alcohol upon the human character. It will, therefore, be well to view the ground we are about to occupy.

We now have nothing to do with the acute symptoms or effects of alcohol. Neither does periodic intemperance, the impulsive outcome of a morbid neurotic temperament, and mostly irresistible, enter into the present consideration.

The positions occupied by the various causes which combine to inaugurate the alcoholic diathesis, are no longer in view. Physical injuries, disease, heredity, alcoholism itself as a founder of a constitu-

tional predisposition, are all understood and passed by.

The present inquiry relates to the consequences of steady indulgence in alcoholic liquors; not necessarily associated with actual intoxication; not indeed, of a degree that would be esteemed by many to be excessive. The design is to inquire into the ultimate and final effects of alcohol upon the brain and mind of the chronic and systematic inebriate.

It is the settled conviction of competent observers, that the habitual use of alcoholic drinks, has a direct tendency to interfere with the regular and equal nutrition of the body in all its parts; and that it promotes the increase and growth of the cellular tissue, to an extent that compromises the health and functions of important organs.

It is the opinion among those best qualified to judge, that about seventy-five per cent. of the cases of paralytic dementia have a history of alcoholism. Yet it must be understood that all steady drinkers are not affected with the extreme consequences of chronic alcoholism. There must be in operation a constitutional predisposition, which favors the occurrence of the trophic changes induced by alcohol in certain cases, and which make the path straight for the mental and moral disasters which ensue. It will be seen, however, in another department of our inquiry, that constitutional modifications may arise, and come under the laws of heredity, which are not associated with any sensible trophic changes. This

will more clearly appear when the subject of alcoholic anæsthesia is under consideration.

According to statistics, out of 160 persons affected with the progressive paralysis of the insane, 116 had the alcoholic association. It is not essential to the present purpose that the details of the other causes of paralytic dementia, such as sexual excesses, prolonged mental emotion, syphilis, and sun-stroke, should be dwelt upon. It is desirable, however, that the part played by alcohol, in this relationship, should clearly stand forth in its proper individuality.

This introduces the investigations respecting the morbid appearances which are commonly observed in the brains of those who die of paralytic dementia. It is the purpose to speak of those appearances only, which are well known and universally admitted; conceding, of course, that it may happen sometimes, that material changes may be truly ascopic, and not be recognizable by the senses.

The nature of the most obvious initial change in the brains of the paralytic insane, is a hyperplasia of the connective tissue. "If we look at a microscopic section of a brain affected with this malady," says Dr. Whittaker, "we see a hyperplasia of the interstitial tissue." Certain minute changes observed in the cerebral substance of one who had suffered from this form of disease, were owing, says Dr. Maudsley, "to an increase of connective tissue; * * * the degeneration of the nerve substance from the hypertrophy of this tissue, has been observed by Rokitansky."

In many respects it is not a matter of importance to determine whether this increase in the neuroglia of the brain is inaugurated by one exciting cause or another; whether it is in fact of one kind or of various kinds; because when the event has been reached, the effects are the same. It may be syphilitic, and the increase may consist of syphiloma; or it may be prolonged mental trouble, and the increase may be possibly colloid, or amyloid; or it may be that alcohol is the exciting cause, and the increase of tissue may present still other properties.

Respecting the particular kind of structure which is hypertrophied through the influence of alcohol, it will be proper to make a few remarks. And first, alcohol is recognized as the element more potent than any other to excite the proliferation of fibrous tissue, not only in the brain, but throughout the entire system. Few structures, Dr. Bartholow remarks (*Practice of Medicine*, p. 844) escape the trophic influence of alcohol when it is habitually introduced within the body. The kidneys, the stomach and the liver, all exhibit an hypertrophy of the connective tissue, "and the neuroglia of the brain also undergoes hyperplasia." A peculiarity of the adventitious structure produced under the influence of alcohol, is strikingly exhibited in its subsequent changes. In the kidneys, for instance, the alcoholic influence induces interstitial hypertrophy; but subsequently the hypertrophied tissue contracts, just as the scars following a burn contract. This contrac-

tion occasions interstitial nephritis. In the liver a similar contraction of fibrous tissue, confining and squeezing the true gland structure among its meshes, produces hepatic sclerosis, or hob-nail liver. In the brain contraction also occurs, and occasions many disasters in the condition of the capillary circulation, and the nerve fibres and nerve cells.

In every instance of hyperplasia of the containing or sustaining tissue the first step toward inducing the inordinate growth, is some impairment of vitality in the part affected. This is true, whether the original source of the trouble is emotional, or specific, or toxic. We can readily conceive of the probability of vital actions becoming depressed under the operation of poisonous agencies. Emotional influences are properly classed with those of a toxic nature, in the production of morbid changes. The fact that vital impairment is a necessary precedent to the inauguration of interstitial hyperplasia, affords the key to a rational explanation of the emotion hypothesis. It all lies in the fact that an irksome persistence in mental operations, and particularly mental emotions induces a condition of debility and exhaustion of the brain power; and depresses the vital forces operating in brain tissue. This weakened vitality invites congestion. "Being brought to a lower state of life, functional activity is impaired; the blood vessels dilate and the corpuscles of the blood exhibit a tendency to stick together." (*Maudsley, Path. of Mind*, p. 499). Subsequent inflammatory and

trophic manifestations follow in due order. The depressing influence of alcohol upon living tissue, is admitted by all; while its especially injurious impression upon connective tissue, when introduced into the circulation habitually, and visiting all parts of the organism, is demonstrated by the illustrations already given.

It will be remembered that I am considering the effects of alcohol upon the brain, the mind and disposition. While it would not be foreign to the subject to endeavor to establish some relationship between the derangements of the liver, kidneys and stomach, and the manifestations of mental and moral force, it will not be necessary to do so. The undoubted and obvious physical disaster visited upon important bodily organs throughout the system, shows, not only the nature, but the universality of alcoholic impression. It shows that the brain must suffer, equally with other organs bearing in their substance any trace of fibrous tissue.

But in truth, we are not compelled to rest upon this line of illustration for proof of the extent and kind of destruction wrought upon the substance of the brain by alcohol.

Pathological investigation, aided by microscopic anatomy, shows the very changes themselves, and in the very spot where they occur. And they enlighten the understanding with respect to the mental and moral injury which is so apt to overtake the systematic inebriate, as well as his posterity.

The unnatural growth of the neuroglia of the brain, which, says Maudsley, "it is thought has its starting point, not only in the nuclei of the walls of the blood vessels, but also from the proper nuclei of the brain substance," operates ruinously upon the true nerve element by mechanical displacement and intrusion. "As a consequence of the exuberant increase of the hypertrophied tissue, the nerve elements, as well as the delicate capillaries, are injured or destroyed; * * * atrophy of nerve element takes place, either in consequence of interference with its nutrition, or from the growth of connective tissue. —(*Maudsley, Path of Mind.* p. 511-514).

Of course so serious an intermeddling with the normal condition, and even the existence of the nerve cells, implies a corresponding decay and disturbance of mental function. It is easy to conceive of the impossibility of mental activity in normal relationship with natural surroundings, when the nerve cells are obstructed in function by the mechanical encroachment of an aggressive foreign substance.

But the injury done to the nerve cells does not depend exclusively upon pressure occasioned by the hypertrophy of neighboring structure. The final contraction of the intrusive connective tissue, by a process of strangulation of the smaller blood vessels, induces a failure in the proper nutrition of the nerve substance. Consequent upon this defect in nutrition, there ensue various forms of cell degeneration. Nerve cells, for example, may undergo fatty degener-

ation. Unfitted thus for physiological action, they may be absorbed, and in the place that was occupied by them, there will be observed certain changes in the interstitial tissue of the part. "The fine elastic fibres contract, get closer and closer together, and remain as the constituent tissue of a cicatrix which sometimes causes considerable deformity; whole sections of nerve substance have been replaced by a relatively small quantity of an unyielding, compact, dry tissue."—(*Ibid.*, p. 513).

When the deterioration of the nerve cells approaches this point, it is impossible that the mental functions should be exhibited in a regular manner.

As the process of hyperplasia goes on, "the circulation is shut off, and the brain substance becomes anæmic. Then contraction of this new connective tissue occurs, and strangulation of nerve cells and vessels ensues." Pigmentary degeneration of the ganglionic cells of the brain is observed in the several forms of paralytic dementia, as also are earthy, or calcarous degeneration of the same class of cells. Various other changes in the form and structure of the cells of the brain, have been described in connection with paresis.

In the same direction, Professor Loggia, of Palermo, Italy, says: "When we bring to our aid the microscope, we begin to see and to understand the intimate fibro-cellular and interstitial alterations. It is by this means we succeed in determining the vascular and perivascular lesions of the cerebral sub-

stance, the colloid and cistoid degenerations, as well as the lesions of the nerve-element—cells, tubes, and neuroglia—which have, according to the most accurate investigations, undergone great transformations in this disease.”—(*Alienist and Neurologist*, July, 1882).

Passing from this class of physical degeneration of the nerve cells, in the production of which alcohol is so prominent a factor, it will be proper to consider some of the changes which take place in the nerve fibres at the same time and from the same cause. It is true, these fibres can avail nothing in bringing mind into proper relationship with external matter, if the cells which function perceptions are destroyed. But even if these cells should retain any considerable integrity of structure and physiological power, yet, if the nerve fibres are destroyed, or seriously injured, there can be no reciprocal action between the mind and the world exterior to it, because there will be interruption in the continuity of the only means of communication between them. Even should the batteries be in order, they will be useless if the “wires are broken.”

Reciprocal action between the mind and the natural world exterior to it, is a necessary event in order to reveal the identity of mind as well as the quality of matter. If the mutual interactions of mind and matter are incomplete and abnormal, the ideas in the mind respecting the quality of natural things must be erroneous. If this interaction is very great-

ly disturbed, the conclusions of the mind are so grossly wrong, that it is pronounced unsound. Incapable of perceiving natural facts correctly, it perverts their meaning. The actual existence of mind in its several departments is only declared by its interpretation of nature either directly; or indirectly by perceiving and adopting the reports of other minds. And its soundness is shown by the accuracy or otherwise of this interpretation.

How can a mind reflect nature and the phenomena of natural forces, when the physical conditions of mental activity, are wanting, or broken, or in confusion? Alcohol destroys these necessary conditions, and throws them out of their natural relationship and order, by its fundamental interference with the nutrition and integrity of the essential elements of the true brain tissue. Mind and matter must harmonize; they must illustrate one another. When they fail in this, mind must be esteemed to be defective, and not the material world.

On these points Maudsley says, (*Path. of Mind*, pp. 511-512): "As a consequence of the excessive increase of the connective tissue, the nerve elements are destroyed or injured. In the gray substance, the ganglionic cells appear inflated, their continuations are undoubtedly torn and the nerve tubes penetrating the gray substance are destroyed. * * *

* In connection with the hypertrophied tissues are amyloid corpuscles, colloid corpuscles, calcareous and fatty granules,—all being products of a retro-

grade metamorphosis—if the colloid and amyloid bodies be not, as some suppose, fragments of broken-up nerve.”

So it is found that, in the various degenerations incident to the increase of connective tissue in the progressive paralysis of the insane, a disease peculiarly the child of alcoholic indulgence—mind is incapable of preserving normal relationship with extrinsic mind or matter, by reason of isolation—exclusion.





CHAPTER XII.

The effects of alcohol upon the brain of the inebriate, continued—Nervous co-ordination, the foundation of the sense of personal identity, and of the feelings of duty and responsibility—The co-ordinating structures injured by Alcohol, while the moral nature is correspondingly debased.

Dr. H. P. Stearns remarks, pertinent to the present stage of the general discussion I have undertaken, as follows :

“ I may frankly say that my own opinion is that in a large majority of cases where individuals have habitually or daily used alcohol as a beverage in any considerable quantity, and so as to become frequently inebriated, that there is established an abnormal state of the brain which may be transmitted to offspring ; and that this takes place through the elective action of alcohol affecting the vaso-motor portion of the nervous system, and through it the capillary portion of the circulation, and ultimately the cell structure of the brain ; that in consequence of this physiological action of alcohol upon the nervous system, when frequently and long used, there results a less sensitive and delicate condition of these

constituent portions of brain surface, and that they become correspondingly less responsive to both objective and subjective impressions or influences, and that, therefore, there will result a less normal discharge of thought function in its various manifestations, both moral and intellectual.”

While the process of structural change and degeneration is progressing in the cells of the brain, through the persistent application of the alcoholic poison, there take place various unnatural mental phenomena in consequence of the modifications undergone by the true brain tissue. These morbid and insane manifestations of mental activity, may sometimes be guided into certain channels, and observe certain directions, in consonance with the previously prevailing sane and common opinions of those affected by them. The following is an example that fell under my personal observation: C. C——, a man past middle life and esteemed to be of superior business qualifications, was a steady daily drinker. He was very seldom actually intoxicated, though he was generally under the influence of liquor. He was of those who believe that alcoholic spirits will do no harm, but on the contrary are useful, when taken in moderation and with regularity. This was his sincere opinion, and he acted in accordance with it.

C——, was of rather superior physical proportions, of ruddy complexion naturally, with fine black eyes, beautiful hair, and an open countenance. He was a firm believer in the doctrines of spiritualism.

At length his face displayed the dull, unchanging red, of the steady drinker, without especial bloating or distortion. A little later, although sanguine and energetic naturally, and accustomed to meet and overcome difficulties, he became serious, moody and melancholic. Auditory hallucinations began to afflict him. These assumed the form of messages from his mother, who had been dead many years. He believed that she called him to come to her. Of course this was in exact unison with his depressed and despondent condition, and also in harmony with his faith in spiritualism. If he ever had doubts on the subject of communion with the spirits of the dead, they were now removed by the recognized voice of his mother. He hanged himself early one morning, when no one would be likely to interfere. The astonishment created by the self-destruction of C——, was great; for he was regarded as possessing a more than average share of rugged common sense on all practical topics. The revolution in his nature and purposes, was doubtless the result of brain degeneration brought on by alcoholic indulgence.

There was nothing, except the previous convictions of this man respecting the truth of spiritualism, to prevent his hallucinations assuming a form that might have led to murder, in the place of suicide.

But there remains to be considered another nerve complication which is often brought about by the toxic properties of alcohol. Besides the cells and centers ministering to sensation, motion and ideation, and,

besides the various avenues to and from these centers, there exists in the brain a large and dominating class of nerve fibres known as fibres of association. These first distinctively pointed out by Meynert, have been carefully studied, and their connections and offices determined.

The great importance and wide application of this branch of our inquiry demand a few words of explanation. The powers and relations of the strictly intellectual faculties are always prominent subjects of investigation. They have been foremost in the views hitherto expressed relating to the influence of alcohol upon human character. But there is a class of faculties belonging to healthy mental display, and which are absolutely essential to sound mental exhibition, which has not as yet come under consideration. It has been the fashion, practically, to look upon morality as a peculiar grade or quality of intellectuality, and to hold the reasoning powers responsible for every phenomenon, good or bad, of the *moral* nature. There seems to prevail an idea that immorality is somehow the outcome of an intellectual activity associated with dishonest tricks of the rational faculties; while morality is the offspring of intellectual operations undisturbed by the irregular and undefined freaks of reasoning gymnastics.

In opposition to these and similar ideas, I wish to emphasize the fact that there is a distinct portion of the brain as certainly employed in the formulation and exhibition of the moral capacities and powers as

of the rational nature and powers ; and further, that the disturbances of the brain consequent upon toxic or other influences, are as liable to affect that portion associated with the moral nature, as they are to impress another portion of the brain, connected with ideation and reason. There is a perfectly well defined line of demarcation between the moral sentiments and the intellectual exhibitions ; between the centers of emotional and moral display, and those centers ministering to rational exposition ; between, in short, the physical basis of morality, and the physical basis of rationality.

Of course it is understood that in health, there is a natural and agreeable interchange of function among all the nerve centers, moral, ideational and motor, and I may add ganglionic ; making an harmonious unity. Yet it is evident there may arise confusion in the co-ordinate functions of these several and diverse centers, consequent upon causes which will throw them out of their natural relationship with each other ; giving rise, thus, to various disturbances, as one, or another class, of the nerve centers are mainly affected.

I will now direct attention to that large and very important part of the human brain, which, while it does not think, does not decide, yet impels the mind to activity, directs its course, and often from the very beginning, determines its conclusions. I speak of the centers and fibres of co-ordination ; these centers constituting the physical basis of moral activity.

A comprehension of the existence and functions of

this portion of the brain, is not only necessary for understanding the phenomena attending chronic alcoholism, but it is essential also, to the explanation of many of the remote consequences growing out of the use of alcohol. Indeed, the activity of those portions of the brain which minister to morality, is no less universal and no less necessary, in the life of man, than that which is associated with the purely reasoning faculties. Respecting the character and importance of the co-ordinating structures of the brain, Dr. Maudsley remarks (*Path. of Mind*, pp. 373-483): "The habitual co-ordination of thoughts and feelings is the basis of consciousness and personal identity." Again he says: "When the co-ordination of function in the brain is overthrown, the consciousness of personal identity and responsibility is also destroyed."

What I conceive to be the opinion of the best authorities on this subject, seems to be fairly, and tersely rendered, in the language of Dr. Spitzka, as follows: "Meynert, many years ago, called attention to the presumptive physiological role of certain arched fibres which are known to unite adjoining, as well as distant cortical areas with each other. * * * * I should, if asked to point to the chief factor on which the higher powers of the human brain depend, lay less stress on the cortical development, as such, than on the immense preponderance of the white substance, due to the massive associating tracts. Although the projecting tracts are also larger in man than in any other animal, yet so great is the preponderance of the

associating mechanism that the elimination of the former would not reduce the white substance of the hemisphere by one half its bulk. Both projecting and associating fibre masses increase in a nearly geometrical progression as we pass from the lower animals to man; but the ratio of progression of the associating fibre masses exceeds that of the projecting tracts. There are certain convolutions which are almost exclusively connected with *fibræ arcuatæ*; that is with associating tracts, and which enjoy but little direct connection with the bodily periphera. It is reasonable to suppose that such cortical areas, so connected, play an important role as a substratum of the abstractions. Such cortical areas and their subsidiary associating tracts, bound into the still higher unity of the entire hemisphere, constitute the substratum of the metaphysicians *ego*. A disturbance of the intricate relations which are involved in the material basis of the *ego*, must be accompanied by a disturbance of the *ego*, or may even render an *ego* an impossibility."

It is evident that the consensual activity or consent of the healthy nervous attributes and capacities is the one essential requisite to the display of sound mental function; and, as such attributes and capacities are held in unison through the integrity of the nerves of association, any disturbance or obstruction in the free exercise of the functions of these nerves must give rise to lamentable defects in mental operation. When the interchange of nerve influence between the various centers concerned in thought is free and unembar-

rassed, there is present in the mind a vivid sense of personal importance and individuality. The feelings of rights, duties, cares and responsibilities are active, and they control all the serious avocations of life. This ever-present sense of *responsibility*, while it exacts duties, also confers power and dignity to character, and implies the freedom of the will. The sense of responsibility demands untrammelled freedom of conduct, assumes the weight of accountability, and challenges retribution. There is present in the mind, an acute sense of its ability to discriminate between right and wrong. But in chronic alcoholism the ready interchange and equilibrium of nervous association is overcome by the intrusion of hypertrophied interstitial tissue upon the nerves of Meynert. And especially are these nerves injured, both in office and structure, by the contraction of the connective tissue, which, by strangulation, annihilates their function.

What does it matter now whether or not the projection fibres in either direction are in a perfectly physiological condition? What does it matter whether the nerve cells are or are not in a healthy state? The toning, the equalizing, the co-ordinating power is lost, and the mind is simply a "jangling of sweet bells out of tune." It must be a fact, however, that any considerable disturbance of the association fibres in the brain cannot occur without the implication of both the projection fibres and nerve cells. For great as the distinctions in *function* amongst the nerve centers undoubtedly are, similar distinctions do not

extend to the intimate nature of nerve *structure*. Any serious disease, therefore, implicating a considerable portion of the nerve tissue in any department of the brain, can readily reach analogous tissues in other localities, and impress its influence there.

Very interesting considerations of medico-legal concern are interwoven with the influence of alcohol upon the brain tissue. It is not difficult to conceive of the unstable will, the impaired will and the imbecile will when the consciousness of personality is weakened, and the feeling of responsibility is lost, in consequence of injury to the fibres of association.

It is conceded by all whose authority is of any weight, that one of the earliest symptoms pointing to the progressive paralysis of the insane is a marked change in the disposition. There is a change in the moral nature. This is observed very soon, because the sensibilities are on the surface; they are always on the alert, and any great disturbance of the nerve centers would more readily declare itself through the moral nature than through intellectual defects. It is evident that the finer and more sensitive qualities of the mind would become earlier and more seriously affected by morbid processes than the grosser and more common qualities.

The very terms emotion, sensitiveness, sensibility, indicate the extreme readiness of the moral sense to take the alarm. Besides, the intellectual operations are guided in a great degree, by automatism and habit, a thralldom insufferable to the impressible and

refined characteristics of the elements of morality.

If it is true that the function of the association fibres contribute so manifestly to the establishment of the feeling denominated the *ego*, with its implied senses of responsibility and of duty, it follows that the failure, or inhibition of this special nervous function would be succeeded by a destruction of the *ego*, and a destruction of the senses of responsibility and duty.

An early sign of impending paralytic dementia is loss of memory, that is, loss of the associating faculty or power. This must be consequent upon injury to the structural basis upon which the function of association and equilibration amongst the nerve centers depends. It points to disturbances affecting that portion of the brain set apart to minister to the unifying of mind and morals, and to the individualization of mind and matter.



CHAPTER XIII.

The effects of alcohol upon the brain of the inebriate, continued—Two stages in chronic alcoholism—The first concerned with defective intelligence, as with hallucinations. The second stage concerned with defective morality, as dishonesty and sensuality.

There are two stages of chronic alcoholism. The latter stage may, however, be ushered in sometimes, without the conspicuous appearance of the former.

As to the first stage: There may appear after a protracted period of steady drinking, not necessarily carried at any time to strong intoxication, a situation of the nervous system characteristic of the chronic effects of alcohol. There is some debasement of the moral faculties with muscular unsteadiness and trembling; not evanescent, but of a staying nature. But the more striking symptoms relate to delusions and hallucinations. The delusions are such as indicate distress in the nerve centers; as might, indeed, be inferred when it is remembered that the process of proliferation of interstitial tissue is in fact taking place in the brain. The delusions indicative of this stage of chronic alcoholism, are those of persecution. Dangers are apprehended; robbery or assassination is

threatened ; while the hallucinations are of a kind to confirm the delusive ideas.

It is manifest that, when, upon the application of any cause, certain brain cells are materially disturbed or injured, the adjustment of ideas with which they have been related, must also be disturbed. A derangement and confusion amongst the habitual relationship of ideas, and in the natural order of mental operations, must ensue. When brain cells associated with the reasoning powers are destroyed, the resulting mental disability, be it what it may, must be permanent and beyond the usual control of will or of evidence. Mental disability thus originating, is of that kind which depends upon the advent of brain disease connected with organic pathological processes. It comes unexpectedly, and without the intervention of the senses or the perceptive faculties. This kind of disability induces convictions possessing the qualities of demonstration ; —concerning which, it is impossible for the mind to conceive anything to the contrary—and not of the nature of proof ; concerning which, reason and testimony may induce conceptions of modification and even antagonism.

When it is remembered that the degeneration of brain tissue in consequence of the alcoholic habit is progressive, and is steadily increasing for a considerable time, an idea may be formed of the irritability, uneasiness, and distress which must necessarily harass any one subject to that habit. The nature of a man so afflicted is changed and is continually changing.

He cannot be expected to maintain equable personal characteristics, at periods of time at all remote from each other. And above all, as his rational faculties decay and his powers of co-ordination and comparison become weakened and imbecile, he is prone to exhibit himself in a corresponding ratio, the victim of his own bodily and animal appetites. The ordinary restraints of reflection and morality being no longer paramount, the feelings, and desires, and possibly brutal lusts are the untrammelled and incautious incentives to conduct. Transported beyond the controlling ascendancy of any special sense, or of any mental faculty, the physical constitution as a whole, rushes on to disgrace or to crime, under the sway of unreasoning and uncontrollable impulse. There is little if any practical distinction between a mind affected in this way, and a mind completely absorbed and directed by an overwhelming morbid neurosis.

Hence it appears why, and how it is, that the first suspicion of the approach of paralytic dementia is aroused often, by the spectacle of an unexpected and astounding breach of decorum or of law, in the person of some one whose previous life perhaps, had been pure, and in every way, admirable.

There is an exception to the remark, that destruction of brain cells is permanent and unalterable in its effects. As will appear by and by, when brain difficulties are not too general and radical, the mind, by a process of unconscious adjustments and adaptations, finds certain inferior substitutes for its damaged

faculties, which sometimes perform a kind of vicarious function.

A patient in the first stage of chronic alcoholism came to me for consultation several years ago. He was moody, abstracted, earnest and frowning. He assumed an attitude of listening, and suddenly said he wished he had his pistol with him; he would see if people would insult him with impunity. He was at the time looking through the window at the pedestrians upon the street. He evidently thought that the insults and threats that he believed to be made towards him were uttered by people passing the house. Supposing this person had his pistol at hand, which he declared with emphasis to be a "cavalry weapon with a nine inch barrel," it is not improbable that he would have gone upon the street and shot down the first man he encountered. Recently a man was shot dead upon a passenger train on the Ohio and Mississippi railroad. There had been no quarrel or interchange of language. The parties concerned were total strangers to each other; but the assailant had been drinking deeply for a long time, and was under the influence of the hallucinations which precede and originate the delusions of persecution, and which are always suggestive of the material injury the brain undergoes in chronic alcoholism.

Respecting the responsibility incurred in affairs of this kind, a judicial investigation would, no doubt raise the point, that even though the homicide was

the direct result of supposed insults, the same insults, if real, would constitute no justification. Abstractly, this is true; but another element enters into such cases, which is absent when murder is committed ordinarily. The condition of the mind which is the result of chronic alcoholism, not only misleads a person with respect to the conduct of others towards him, but it at the same time makes it impossible for him to consider the consequences of his homicidal feeling. The mind is oppressed with universal distress to that extent, that it is constrained to act upon the impulse of feeling alone; and it cannot bring into its prevision, the elements of comparison, judgment and rational will.

My patient was, among other grievances possessed with the idea that he was under the spell of magnetism, and took great pains to warn me to be on my guard against the malignant powers of certain indefinite personalities lest I might become similarly enslaved with himself. It is singular how completely such patients surrender to the ideal powers they have imposed upon themselves. There seems to be no thought of resistance or flight. One patient had prepared himself for death upon the gibbet, declaring his innocence of the crime imputed to him; yet he seemed incapable of conceiving of any possibility of escape.

This is frequently observed in recent cases of delirium tremens. The damage to the brain, so far as it extends, seems for the time complete. There is ab-

solute obliteration of function; and there cannot therefore, be any possible means for supplying suggestions, or memories, or relative ideas, through which convictions of safety, or plans for succor can be realized. The appalling idea is *fixed*, and the mind, utterly without the physical means of modifying or escaping it, surrenders without struggling, to what it conceives to be the inevitable.

I knew an eminent lawyer, who very gradually approached a condition of paralytic dementia. Indeed, so insidious were the mental changes that, although there were times when one would look at him a second time, in surprise at some small lapse, his real situation was not perceived before his mind was sadly wrecked. He was quiet in demeanor, smiling but reticent, until a state of mind very near to dementia was apparent to everybody. Looking back over a period of several years it was certain that he had been incapable, much of that time, of right thinking. It is probable that he passed a great portion of that period in a state of impaired consciousness; of in fact, a species of trance, wherein his life was disconnected with the life surrounding him. His movements, and especially his mental operations were automatic; and appeared to the superficial observer tolerably well. Yet he was ever ready to adopt suggestions, seemingly being unequal to the task of formulating anything in his own mind. In a number of instances, his opinions thus formed, have proved injurious to clients. They were wrong,

as subsequent events proved ; and they were unworthy of the ability he undoubtedly possessed in his earlier career. He died suddenly with a paralytic stroke.

It is only where there is some rest or delay in the progress of nerve disintegration, that such adaptations may be established, as will furnish a substitution of function, for mental powers impaired by structural lesion in the nerve cells.

The progressive disintegration of brain tissue in many cases of chronic alcoholism is of necessity attended with the most distressing mental conditions. The unremitting activity of the cerebral disturbances often prevents any rallying point in mental function; and the resignation of the mind to the most dreadful situations presented through the delusions of persecution, is simply the resignation of hopelessness and despair. Oftentimes the mind is so imbued with the horror of its condition that, while it hopes nothing for itself, it entreats others to escape from the place it occupies before they, too, become forever overwhelmed and bound by some pervading malevolent power.

I have lingered somewhat upon this case in order to notice the outcome. The patient is a professional gentleman of good ability. He has quit drinking, and five years have passed since the occurrence of the sickness partly described. He is perceived by me—not by people in general—to be morbidly impulsive, given to much self-consciousness and vanity,

with corresponding contempt for the personal and intellectual pretensions of others. The fact is, that changes in the structural mechanism of the brain have most likely taken place, which are of a permanent character. It does not follow that these changes shall of necessity go on unrestrained, to the final brain disintegration, characteristic of paralytic dementia. Indeed, when we come to consider chronic alcoholism as a factor in the elaboration of the criminal nature, we shall have reason to recognize as true, the doctrine that the progress of brain degeneration may be arrested, although a return to pristine health and structure is impossible. It appears that upon the withdrawal of the toxic agency of alcohol, the morbid process of cytogenesis ceased in my patient. And now the fact seems to be, that while the nerve elements, injured and abused, may partially adapt themselves to the new circumstances and relations in which they are placed, it is impossible for them to overcome entirely the effects of the mechanical interference with the conditions of mental function.

This man is not sound in mind, when considered with respect to his mental powers previously to his alcoholic disease. He would undoubtedly be held responsible for criminal acts by people in general, who are incapable of rightly interpreting the significance of slight breaks in intelligence and morals. Yet the conscientious expert, learned and skilled in mental pathology, would explain the motives underlying the same criminal acts with great caution and

doubt. Juries are called upon to decide such questions, however, although they are, I fear, incapable often of even imagining the mental difficulties, and contingencies involved in them.

The near advent of the second stage of chronic alcoholism may be suspected oftentimes from surprising exhibitions of moral obliquity. It will be of use, not to lose our bearings in the present discussion. I have said that a change in the moral exhibitions, is one of the earliest symptoms of alcoholism. This refers to the moral *disposition*, rather than the fundamental moral *nature*. The former is associated with functional imperfection, while the latter is the irrevocable outcome of the physical destruction of the nervous basis of morality. The moral disposition may be changeable, fretful, unsteady. The moral nature, in the second stage of chronic alcoholism is overthrown; in fact, it has no definite existence. Few, indeed, are prepared for the grossness of sensuality, and shamelessness of language that are apt to find display in the victims of a brain radically injured by alcohol.

The extreme symptoms of nerve degenerations may not be observed until the patient actually appears in scenes of great indecency or dishonesty. There is no doubt that kleptomania is sometimes a symptom of approaching dementia. The term kleptomania is more proper than thieving, because the motives causing the appropriation of the property of others are as wide apart as the antipodes in the two cases.

In this stage of chronic alcoholism there is already great destruction among the cells, the centers, and the associative fibres of the brain, caused by the violent intrusion of connective tissue upon the domain of normal nerve structure.

If the nerves of co-ordination must operate in harmony, in order to compromise and equalize the several properties of cell function, it is a fact that upon the destruction or even hindrance of the physiological freedom of these nerves, there must ensue great disturbances in the general result of mental activity.

There is a period in human life when the fibres of association can have very little to do. Association takes place only where there may be properties in actual existence that can be brought into relationship. In infancy and very early childhood, sensations and perceptions mainly occupy the mind; and it is only after a period of time, that they become so thoroughly registered, that they can be the subjects of association. It is evident that the infant is at first engaged with the wonders of creation, as revealed by the senses. Of course these become by degrees fixed in the mind, and at length are the subjects of co-ordination, and comparison. But this process is not completed until, by many and various experiences between mind and matter, the individuality of the mind is established on the one hand, and the equally distinct personality and individuality of matter, on the other hand is recognized. Yet the fact is, that this dis-

tinctive establishment, implies that the co-ordinating faculties are brought into activity; and that they at length supplant the integers,—but not less the wonders—of individual sensations and perceptions.

Hence it will be seen, that, before the function of the fibres of association with its power of classification is established, there is nothing by which the infant can be held to possess a true sense of the *ego*—with responsibility. But whatever pleases its fancy through its senses—a bright toy, or a ringing bell—it claims with vehemence and cries. This is not a matter of reason, it is an affair of the feelings alone. The basis of child, or at least infant life, is desire, impulse springing from the sensibilities; not will associated with reason. In the second childhood of senility a similar mental state may be observed. But at the present time we are more interested in the toxic power of alcohol, which also, by destroying the functions of the associating fibres of the brain, reduces the will and the sense of responsibility to the level of the infant mind.

Yet there is a difference. The infant by reason of motor as well as intellectual inefficiency, cannot exhibit, aggressively, any of the moral defects depending upon the imperfect establishment of brain function; while the subject of chronic alcoholism is fully able to display his deficiencies in the moral attributes, as they arise from the destruction of the association cells and fibres. The consequences of injury to the physiological function of the fibres of

co-ordination may readily be perceived. Dr. Kiernan, of Chicago, reports a case where a person in plain view, entered a store and appropriated several shirts to his own use. He was arrested and punished. The sequel was that the man died about eighteen months afterwards, in an insane hospital, of paralytic dementia.

There was a person whom I knew well, who had been a hard drinker as well as a hard laborer. No charge of dishonesty stained his name in a community where he had lived for many years. This man, whose face and head had been very red for a long time from habits of intemperance, suddenly began a career of stealing. It was not like ordinary theft. He would deliberately take, and carry away with him, things notoriously the property of others. A fine gun, belonging to a relative who lived near by, was one of the articles taken by him. He was arrested, and upon my testimony that he was insane, he was sent to an asylum. He made no attempt at concealment, nor did he offer any excuse or explanation. He merely claimed that the articles belonged to him, that they were his own property. Other symptoms of insanity soon followed, and the man died in the asylum in Dayton, Ohio, demented.

This was true kleptomania, and it has the same unreasoning impulsive basis that actuates the child, when it claims the gilded toy or noisy rattle. It all rests upon what J. Russell Reynolds calls "impulse starting from sensation." In the infant, the fibres

of association are not yet established in function,—there is no true sense of personality, no feeling of responsibility whatever. In the slaves of chronic alcoholism, the associating fibres are functionally destroyed by structural changes in the brain. Hence the sense of the *ego*, in its perfection, is lost; the feeling of responsibility goes with it; and the mind in its wreck and ceaseless hurry, seizes upon whatever is pleasing to the fancy, without the rational power of weighing the consequences.

It is evident that the functions of the brain, in parts, as well as in its completeness, may be greatly obtunded, impaired, or even suspended by agencies which, while of considerable continuance, are yet temporary only. Of such, pregnancy, alcohol or other poisonous substances, chronic diseases of various kinds, especially those affecting the stomach and liver, may be mentioned. It is also evident that suspended brain function thus induced, is liable at times to be attended by the same characteristics, moral and intellectual, that distinguish the suspension of like function when it is due to structural lesions in the neural tissue itself.

In the light of these facts the possibility of moral insanity, sometimes curable, at others incurable, must be admitted. It is in truth a symptom of a clearly defined lesion of the brain, either structural or functional—as much so as any form of insanity can be. The suggestion is not unreasonable, therefore, that moral insanity is not the consequence of a mere

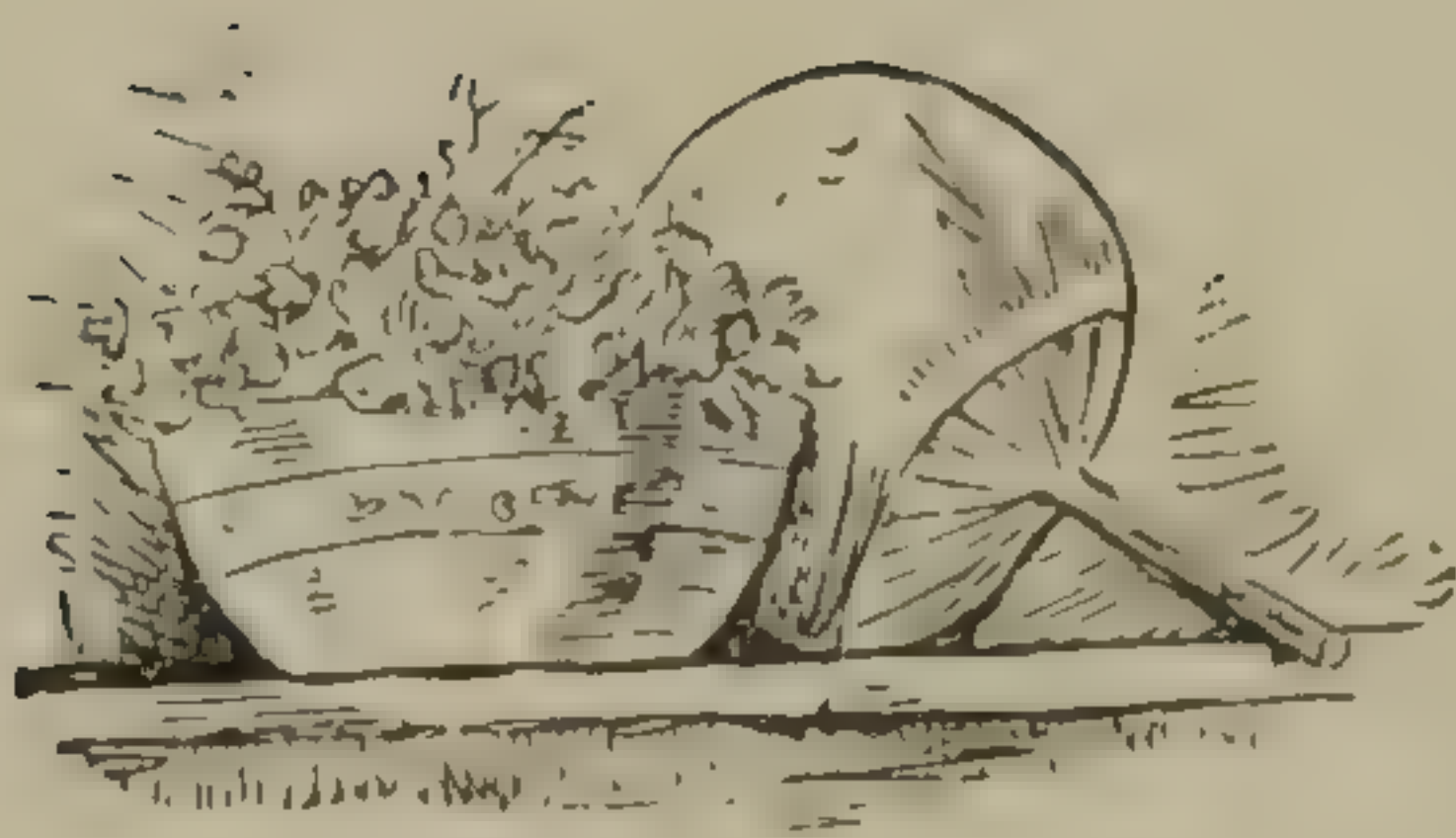
quirking and juggling with the intellectual powers—that it is not simple wickedness and deceit, but that it is a reality, often with a visible and tangible basis.

After the agonizing delusions, illusions, and hallucinations, always present during the earlier course of chronic alcoholism, have passed by ; after the process of wrecking the inter-communication of nerve centers is completed, and the degeneration of nerve cells, and the breaking up of nerve tubes are consummated, there often ensues a state of mental peace and happiness as wonderful as any of the phenomena that have gone before it. All troubles are passed. Dangers threaten no more. Grandeur, power, illimitable wealth are at hand, and the imagination revels in those fancied possessions which all hope to realize some day, but which, alas, never come—to the sane mind. It is true, as pointed out by Achilles Foville (*Alienist and Neurologist*, July, 1882), that these patients are at times troubled with the heavy responsibilities of their imaginary states. The monarch is in distress for his subjects, or the safety of his kingdom, and the capitalist is tormented with the cares and burdens of wealth. But these torments, like the inconveniences of power and wealth in general, are, no doubt, rather agreeable than otherwise, and they would be surrendered with regret.

It is perhaps not a part of our duty to attempt an explanation of this strange state of mind. If a suggestion is admissible, it is the following, which seems best. The time has now come in the course of par

alytic dementia when the perceptive capacity is exceedingly torpid, if not nearly extinct. The memory, especially of recent events, is destroyed. "Snatches of old songs" alone rise on the lips and mind. The mind knows nothing of the present—its cares and duties. The fibres of association no longer respond in function to the stray and fugitive scintillations of degenerate, and dissociate nerve cells. Personality has perished out from consciousness, and with it have gone the cares of responsible life. It only remains for the insane mind and imagination to indulge in those expansive delusions of grandeur and power which distinguish and demonstrate the complete wreck and chaos of the brain. If the mind thinks or imagines at all, it must be in the form of expansive delusions; because the lesions of the brain elements are such as to debar it from the consideration of things fraught with responsibilities and duties.

There has been an idea entertained by grave and sensible men, that a moderate and steady indulgence in alcoholic liquors is useful in aiding the laborer at his toil, and the business man in the difficulties of his affairs. Let those who so think re-consider their opinion, and note the fact, that we have been considering the consequences, mainly of what Dr. Maudsley calls "that dangerous form of habitual indulgence in small quantities of wine and spirits throughout the day, by which some business men endeavor to spur their overtasked energies."



SECTION SIXTH.

CHAPTER XIV.

The physical effects of alcohol modifying the moral constitution — Vicarious function assumed by nerve centers — The influence of anæsthesia upon the mental powers.

Something additional may be said respecting the outcome of a moral nature impaired by the physical injuries to the brain, consequent upon hyperplasia of its interstitial tissue and the changes subsequently induced. The way by which alcohol may destroy the moral sense through physical modifications in the brain has been pointed out. There are some in whom the progress to the final catastrophe of paralytic dementia becomes arrested, and who remain in a certain deteriorated condition of brain and mind. It is true that Dr. Mickle says: "It is the duty of the physician to declare that a case of progressive paresis is without hope." It has been my fortune to see two cases, which presented all the gathering and progressing symptoms of this disease, which were arrested in mid career; and they have remained stationary for from five to seven years.

One of these patients was considerably paralytic, with incapacity of speech to the extent that he was compelled for two or three years to communicate by writing. The ætiology, in this instance, was a combination of alcohol and syphilis.

Now, while it is true, of course, that there cannot be any reproduction of destroyed nerve tissues, yet the fact is, that there may be a very considerable resumption of functions that have been impaired, and even apparently destroyed. I have said, in a former place, that upon a suspension or an arrest of brain degeneration, occurring in the progress of paralytic dementia, there takes place a readjustment of the mind with its surroundings. The advancement of disintegration being stayed, hallucinations and delusions of persecution cease ; and thereupon the mind, using its physical basis of activity, relieved as it is of these distressing complications, begins to act in a better manner, although in a sphere narrower than normal.

But the relief from progressing disease is not the only factor entering into the causes which enable a mind to resume, in good part, functions which seemed to be irretrievably lost. It is well known that the brain is so constructed that its parts, within certain limits, may be brought to act vicariously for each other. A single illustration of the principle will suffice. Dr. C. H. Hughes (*Alienist and Neurologist*, July, 1880, p. 319) says he had a patient with “cerebral softening quite general in the left

hemisphere. The aphasia actually improved towards the close of life. The post mortem revealed a healthy third frontal convolution on the right side, while the corresponding left side was completely disorganized. The man learned to say a great many words, that at first he could not say; so that it was undoubtedly an instance of education of the vicarious function of an opposite speech center." But it by no means depends wholly upon the double constitution of the cerebral structure, to secure a vicarious exhibition of mind or sensibility.

It must be accepted as a fact that, in many ways and through various associations, there are parts of the brain which may be brought to exhibit in an interchanging manner, functions that of right belong to other portions of the nervous centers. Upon this general hypothesis it may be claimed, with every appearance of propriety, that more or less vicarious function can be aroused in some portions of the brain which will represent the injured basis of the moral nature. It is true, that in the indiscriminate destruction of nerve tissue due to some forms of chronic alcoholism, it would be impossible to surmise precisely where it would be most reasonable to look for relief; and this substitution of co-ordinating function must be sought in the spontaneous operations of nature, rather than in the powers of medicine. But that some sense of responsibility may be induced vicariously in a mind whose moral basis is injured by alcohol, must, it seems to me, be recognized as possible.

It is proper that the expression of the principles involved should be clear on this head. While the brain and nervous centers are in the condition of progressing and advancing structural disease; while hallucinations and delusions of persecution prevail, the mind is insane and should not be esteemed to be morally accountable. But upon the hypothesis that the disease is arrested before the nerve tissues are hopelessly injured—delusions and hallucinations having ceased to trouble—then it may be expected that nature will designate and provide such centers of nerve energy as will assume, to some extent, those functions of moral activity which have suffered from disease. There is a very important conclusion arising out of this, namely, that in cases of arrested brain disease, with injury and deterioration of the moral sense, there is still good reason to hold the mind, to some extent, morally accountable for its acts.

A point of paramount importance in the consideration of the subject of alcohol is afforded by anæsthesia. The two great powers displayed by alcohol over the physical constitution—including the ideational and moral elements—are, first, that one producing an increment of the general connective tissue; and second, that other one which induces a state of anæsthesia. The former has been sufficiently noted. Great as it surely is, still it is not so frequently brought under observation as the latter. Indeed, while the cases of well-marked

interstitial hyperplasia are rather infrequent, especially in the brain, the presence of anæsthesia, from the use of alcohol, is perhaps noticeable in every instance where it has been received into the system.

I have lingered upon the subject of paralytic dementia, because it illustrates fully the irreparable disasters which overcome both mind and morals, when the functions of the brain are impaired in consequence of organic pathological changes. But the fact is, that, after all, alcohol comparatively seldom works the organic brain wreckage that paralytic dementia exhibits. If the damage arising from alcohol were confined to the physical changes induced by it, many would doubt whether there were not enough good results attending its use to more than counterbalance the amount of harm arising from the organic mischief caused by it.

But another consideration here arises. If a destruction of function without organic complication is an attendant upon every instance of alcoholic excess, then the topic assumes a new and unlimited significance. For a suspension or misdirection of nerve function originating from *anæsthesia* must present precisely the same mental and moral aspects, as though it came from organic defect. And in addition, such suspension and misdirection of function must, when habitual, finally result in producing a corresponding nerve inefficiency, which, becoming constitutional, is then transmissible by heredity.

Now every instance of the inordinate use of alcohol

is attended by well marked anæsthesia, and by consequent suspension and misdirection of nerve function. Hence alcohol, not occasionally and exceptionally, but always, and as the rule is, equally, as in paralytic dementia, destructive of the mental, and subversive of the moral nature, of human kind.

In acute intoxication, the symptoms that characterize paralytic dementia are evenescent and fleeting, although well marked. In chronic alcoholism, they become fixed and constitutional either with or without organic degeneration.

If the alcoholic neurosis, it may be asked, is the offspring of unavoidable material causes, is not the systemic call for intoxication to satisfy its demands really therapeutical in its essential nature? Can that craving be satisfied without a resort to alcohol, or some substitute for it? The answer is, that the neurosis surely is a disease, and the appetite representing it must be esteemed to be morbid.

I have already endeavored to show that the origin of the neurotic diathesis is of a varying character; and if this is correct, it follows that its prevention and cure must partake of corresponding differences in their nature. Generally, it may be said that the treatment of individual cases must be suggested by the circumstances attending them. But there are a few exceptional points, upon which special observation would appear to promise some profit.

The neurosis attended with structural lesion of brain tissue, must in a good measure prove incurable.

ble. But when it is the production of anæsthesia, non-use,—even if attended with atrophy of nervous tissue through suspension of function, a patient application of such *exercises*,—mental, or moral, or physical, as the symptoms may indicate, would lead to the gradual resumption of function. This course will produce improvement in nerve nutrition, as well as nerve sensibility. In those instances where the nervous basis of morality is enfeebled and inert, unwearying patience is necessary. The indisposition and incapacity of the nervous system to respond in function, when its virility is sapped by the effects of alcoholism transmitted by heredity, are overcome only by the most persevering efforts; and they probably never can be surmounted by purely voluntary powers. “Line upon line; precept upon precept; here a little and there a little;” with proper admonition and reproof, may save a youth from becoming a criminal, when his defect is congenital insufficiency of brain nutrition, and consequent inefficiency of brain function.

Upon the same principle, *exercise* of the motor capacities of the nervous system may prove extremely beneficial where the motor centers are dormant, either from direct anæsthesia, or the peculiar hereditary diathesis which comes from alcoholic progenitors. When the motor centers are oppressed from that cause, the patient has an insuperable aversion to labor. He appears to be in a constant struggle with labor-nausea,—if the term may be

employed;—a state of nerve defect which leads directly to the establishment of criminality. Here a tireless urging to physical industry,—to working with the hands,—may prove to be of the greatest benefit. The dormant motor capabilities are in this way awakened, and brightened, and invigorated; and thus, industry and honesty may grow out of a constitution formed for idleness and crime. With human nature as it is now, labor is no curse. It is a prime conservator of morality, of manliness, and of independence.

I have already spoken of anæsthesia when the subject became linked with prominent collateral considerations; but some of the more special effects of alcoholic anæsthesia upon the mind and constitution have been reserved for separate observation and analysis. While the acute mania of intoxication is a frequent inducement to drunkenness, pure intoxication is invariably attended by that happy oblivion to troubles which is due to anæsthesia; and it is highly probable that the anæsthetic effects of alcohol are quite as seductive as its stimulating properties. At all events, it is a fact that alcohol is habitually consumed by a very great number of men in a degree far short of manifest intemperance. Indeed, drunkenness is to some men a disagreeable as well as a disgraceful condition, who, nevertheless, will partake of alcoholic drinks with the simple object of calming neurotic irritability of nerve, and enjoying in a sensible measure the lethal effects of anæsthesia.

The tremendous power which alcohol displays over mankind is largely due to its twofold properties, which seem to be in opposition. It is truly a stimulant—a mental exaltant, and at the same time a nervine and quietant. So rapidly does alcohol press forward the changes in mental life, that what would at one moment seem to be a happy and exciting stage of activity, is very soon converted into an equally happy and desirable condition of quietude and repose.

But in every instance, both of stimulation and anæsthesia, the effect is a mental exaggeration and deflection. The relations of the mind with the world exterior are out of normal proportion, and they give delusive coloring and defective information as to actual facts.

It is from the steady, but often the moderate drinkers that the injuries inflicted through anæsthesia, both directly and by heredity, upon the human constitution are chiefly derived; and it now remains, while considering the powers and effects of alcohol, to trace the operations of habitual anæsthesia, and point out their final consummation in the destruction of the moral and the establishment of the criminal nature.

Of course, it is understood that several agencies capable of inducing anæsthesia, or, at least, greatly reducing the acuteness of the nervous sensibilities, are in very common use. The irksome and galling irritations, both physical and mental, of civilized

life, are prone to induce an insupportable erethism of nerve, with a morbid continuity of thought and imagination, that demand rest, lest some great nervous calamity should supervene. To obviate such distress and danger, other substances besides alcohol are often instinctively employed; and they are seized upon and welcomed as true and trusted friends. Of such are opium and chloral; and I think it will admit of no doubt that the almost universal employment of tobacco for its soothing properties has the same practical basis. These and other anæsthetic and quieting substances, habitually taken, work their share of evil in common with alcohol; and whatever may be said in this inquiry respecting the outcome of the habitual anæsthesia induced by alcohol that can be also applied to the effects of opium or tobacco, it is understood will receive such application by the intelligent reader.

I will, however, take the liberty to make a few observations upon the influence of the class of articles usually employed to impress, in an agreeable manner, the minds and nerves of men. These agents are, without exception, depressants, when continuously used. It is probable that a majority of the male inhabitants of the United States consume tobacco as a daily habit. No one will pretend that this article is not possessed of very powerful qualities. Every man who habitually uses tobacco, must, in the end, depress, if not deprave, his constitutional powers. This may be disguised by auto-

matism, and by vehement declarations to the contrary. But the proof is certain and irrefragable. Such a man cannot impart a constitution to his progeny that is on a par with his own, before his habitual indulgence. The new constitution must be a grade lower, a shade weaker.

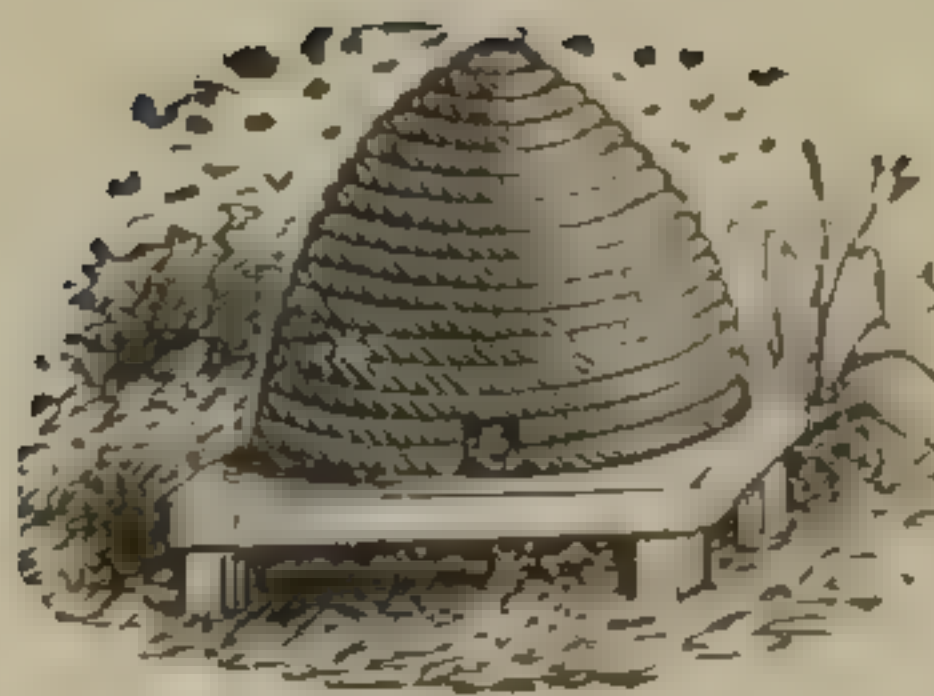
But it does not require much lowering of the human constitution to bring it within the region of morbid neurotic influences. Much degradation in constitutional quality is not requisite to predispose to neuralgia, epilepsy, dipsomania, and insanity. It does not require a very profound descent in the human constitution to encounter direful local diseases and deformities with a constitutional origin. Does any one pretend that the terrible scourge of the times—*catarrh*—is not a disease derived from a constitution enfeebled and deteriorated? But our present discussion is distinctively of alcohol, and I will confine myself in express terms to its powers and peculiarities.

Whatever may be the opinion respecting the nature of mind abstractly, it is a fact that its manifestations through its so called faculties are, in the human association, dependent upon the operation of physical causes. The faculty of perception, for instance, cannot be brought into normal activity and become manifest, except through the intervention of sensation. If there is no sensation, there can be no perception, and no consequent mental projection. If anæsthesia is incomplete with respect

to the element of sensation, perceptions are necessarily incomplete also, and they cannot result in well defined and positive mental operations and convictions. If anæsthesia is modified with regard to the quality, or kind of sensibility, the given sensations are not in conformity with the normal sensibilities of the nervous parts and structures which they represent; and the perceptions must partake of the modification of such sensations, and they will be misleading as to actual facts. The subsequent mental acts will be out of accord with their normal surroundings; as will also the judgment and the final choice in action or belief. Finally, if sensations are partial; if, in other words, anæsthesia is confined to parts of the structure only, while other parts retain sensibility, then perceptions are incomplete, relatively with the outward fitness of things. We have the familiar examples of partial, or locally confined sensibility, in the phenomena of dreams, somnambulism, delirium, and all the forms of impaired and deteriorated consciousness.

Anæsthesia, in some degree of intensity, is a universal accompaniment of intoxication. The anæsthesia of alcohol is not, as a rule, complete. Still, instances of entire insensibility to pain, and that, too, without unconsciousness, while under the influence of alcohol, have been observed. Dr. Mason (*Journal of Inebriety*, October, 1882, pp. 215-216), reports such a case. The patient, a lady suffering from cancer, refused to take ordinary anæsthetics

preparatory to an operation. “It was decided to try the anæsthetic effects of alcohol. The administration was begun about two hours previous to the operation. The quantity used was six ounces of brandy, given diluted in divided doses, every twenty minutes. The superficial portions of the breast were removed by the scissors, and the deeper portions by means of the electro-cautery knife, the deeper and surrounding tissues being deeply cauterized; the patient was wholly unconscious of pain during the operation, and under perfect control and self-possessed, answering questions that were asked her.” This was a case under the treatment of Dr. W. H. Bates, of Brooklyn. The time consumed in operating was over an hour. Dr. Seguin and others have recorded examples where the absence of common sensibility was confined to particular parts of the body only—as, for instance, below the knees, in the forearms, and in various circumscribed portions of the surface. It is certain that the anæsthesia of alcohol may partake of any one of the modifications of the anæsthetic state. That is, it may be complete, or incomplete, as to intensity; partial, as to localization; and modified as to quality. This implies all the disabilities to perception that have been noted as belonging to these conditions. And an important inflowing mental disability is that which, in consequence of modified or partial anæsthesia, makes possible, and indeed probable, various forms of delusion and hallucination.



CHAPTER XV.

The physical effects of alcohol modifying the moral constitution, continued—Anæsthesia, as it impresses morality—Trophic changes in brain tissue—The hereditary transmission of such changes, with depression or overthrow of morality—Foundation of the criminal nature.

There are several avenues through which the moral nature is debased by the anæsthetic properties of alcohol.

1st. It is apparent that a mind hedged in by serious lesions of nerve sensibility must operate at a great disadvantage. It is obviously forced to pursue its course of action, so hampered by the inferiority and poverty of its instrumentalities, that its operations are upon a plane beneath that pertaining to its natural powers. Perceptions arising under such circumstances are of necessity defective, and all mental activity and conclusion associated with them must partake of kindred characteristics. It follows, if reason and will are confined or deflected, if the inhibitory and the ideational centers are not working in harmony, that the co-ordination of mental qualities thus evolved cannot bring forward the best and clearest principles of manliness, honor and

morality. The very fact that the mental elements which await the co-ordinating function of the nerves of association are in their own nature indistinct, or illusive, injures the standard value of that final average of the whole, which it is the province of the unifying centers to establish. The ultimate consequence is that the quality of assertive personality, of the *ego* with responsibility; in fine, the quality of distinctive moral principle must be inferior and deficient.

Carried to its extreme limit, this reduced average of the mental powers approaches imbecility, both intellectually and morally. Character, or individualism, must be maintained by the perfection and free interchange of all the essential elements of the mental organization. If these elements are materially deteriorated, as for instance, by alcohol depraving the sensibilities of the brain, character is no longer definite and independent. A mental nature thus depressed, may be alcoholic in itself; or it may be the offspring of inebriate ancestry. Everybody has observed the growing imbecility of the chronic inebriate; and most observers can testify to the tameness of character, the yielding nature and want of individuality marking, very often, the insipid descendant of the habitually intemperate.

The inertness and mental debility of one portion of the descendants of the drunkard are, in some sort of accord, with the low cunning and craft, but equal idleness, which distinguish another portion of

his posterity; that portion, I mean, which turns to dishonesty and crime for a livelihood. In the former, the intellectual basis appears to be chiefly involved. In the latter, the basis of morality seems to suffer mainly.

2d. But the influence for evil to the moral nature, derived from the benumbing power of alcohol upon the physical structure of the brain, is displayed in another direction. Nothing can be more probable than that the co-ordinating structures within the brain will themselves undergo injury and deterioration at the hands of alcoholic anæsthesia. It is absurd to imagine that the mischief wrought by alcohol is confined to certain portions of the brain exclusively. It would be easy to show that anæsthesia is not limited to the tactile sensibilities, but that it extends to organic sensibility also. “It affects not only the integumentary, but the deeper tissues of the body as well,” is the remark of competent authority. The inference is plain. Let the sensibilities be what they may; let the reasoning faculties be in the best possible condition; still, with the centers of co-ordination repressed, and the expression of their capacities hindered, the moral attributes displayed through their operation must exhibit the characteristics of instability and weakness.

3d. Again, alcohol, in the injuries it inflicts upon the nervous organization, interferes with another prominent factor in morality. We have seen elsewhere that motive is the spring of all sound mental

activity, good and bad; that it is a principle of the moral nature, and it depends for its highest qualities upon the integrity of the physical structure, and of the functional operations of the brain. For in motive is included the nature of the moral design. It inaugurates reasoning and incites will; it is the incipient impulse to reason, and, while it employs will, it is as a medium to the attainment of the ulterior design involved in the nature of motive. It is surprising to see the inclination that so generally appears, to exalt the purely intellectual faculties, at the expense of the moral capacities. In a healthy mind, motive employs intellect as its handmaid and instrument. In an unhealthy and defective mind, where the moral nature is low or extinguished, the passions, the desires, the lusts of sensuality, likewise employ the intellectual faculties; but they impel those faculties to labor in the accomplishment of wicked and criminal aims. The moral faculties display the noblest qualities of the human character. When they are absent, sensuality rules supreme. Alcohol, by impairing, and at times destroying the physical basis of the moral nature, renders that nature inoperative. Hence, motive ceases to act in its normal capacity and character. The mere animal passions and instincts usurp the domain of motive, and they incite the intellect and will to act in accomplishing the behests of gross and sensual desires. Thus, in another distinct and separate way, alcohol depraves or destroys the capacity of the

mind for the exhibition of the higher moral traits of honor, sympathy and civilization—traits upon which all the real happiness of mankind depends.

I now approach some points having relation to the facts of heredity.

The transmission of acquired constitutional characteristics, both trophic and functional, presupposes a process of change of long continuance in ancestry; a process, too, which is mostly completed. It therefore implies that the morbid or toxic phenomena occurring in the progenitor, must be possessed of features which do not appear in the descendant. The process of brain disintegration in the earlier period of paresis is attended with mental exhibitions, such, for instance, as hallucinations and delusions of persecutions, which are not of necessity found in posterity. The brain is not the subject of the disintegrating process in the children. It has passed through that in the parent; and the symptoms and special responsibilities associated with progressing nerve degeneration belong exclusively to ancestry.

In the mental degeneracy from alcohol, connected both with interstitial hyperplasia and with anæsthesia of the brain, there is likely to appear symptoms of active insanity. This is the natural expression of nerve cells and nerve centers, while in the actual process of morbid degeneration. But in the descendant, the heredity is more likely to be manifested by moral decay, without possibly, any symptoms of lunacy. It would be assuming too much to claim

that alcohol is without effect upon interstitial tissue, unless the physical evidence is clear to the senses. The fact is, that few of the sum-total of drunkards ever exhibit prominent symptoms of paresis. But there can be no doubt that, in a great number of habitual inebriates, there do occur in the brain, minor stages of interstitial hyperplasia, which, while insufficient to produce very remarkable changes in mental function, are yet enough to modify the character of the mind. There are certain expressions of countenance belonging to the inebriate, which are difficult to efface from the physiognomy, and which may be transmitted to posterity, even when that posterity eschews drink. This fact shows that trophic changes have certainly taken place in the brain, of which these expressions in the physiognomy are the reflections and indices.

In connection with the constitutional changes in mind and morals dependant upon the habitual anæsthesia of the alcoholic inebriate, there are also, no doubt, very peculiar trophic changes in the ultimate structure of the nerve centers. Such changes, however must partake of a nature very different from those we have been considering. There is habitual repression of function by the inhibitory operations of alcohol upon the sensibilities; and there must ensue, in the end, a relegation of nerve centers towards a rudimentary state. Of course this is a state quite distinct from that of structural lesion, such as is presented in the disintegration of paresis. It is a state

induced by a continuous suppression of function by habitual non-use. It is a state, too, that is amenable to improvement by steady and careful exercise and resumption of function, and not by vicarious action or substitution of function.

There is a law, that “function increases structure;” and an equally well recognized law, that absence of function interferes with the natural development of structure—inducing atrophy. The disappointment that is apt to overtake the philanthropist who endeavors to “bring up in the way he should go,” some child taken from the pauper, and criminal class, is too well known to require elaborate description. “Blood will tell.” The subject of such an experiment may appear to promise the best fruits of honesty and manhood, while yet young and immature. But too commonly, as soon as the foundling is fully developed, and mixes with the world as an independent factor of society, he will fail to sustain himself, and will rush, with all the violence of a neurotic temperament into inebriety, or more likely, into criminal courses.

The inhibitory effect of habitual alcoholic anæsthesia upon the co-ordinating nervous system, and thence upon the moral character, is readily seen. Every body competent to testify in the premises, says that the chronic alcoholic inebriate, or the opium eater, is possessed of a very low moral capacity. He is false, and utterly unreliable, whenever his interests seem to be involved. This is usually attributed to the violence of his appetite overcoming all other con-

siderations. I am of the opinion, that it is owing to the latency of the moral principle; a latency produced by the noxious power of poisonous substances, over the functions of the brain

It will be admitted that a defect in brain function, consequent upon structural lesions, and disintegration of nerve substance, or dependent upon anæsthesia, will, so far as outward mental exhibition is concerned, be attended by like symptoms. In either condition the perceptive and ideational faculties will prove faulty, while the co-ordinating powers of the nervous system will also suffer impairment. The ultimate consequence will be, a depraved or abolished moral nature. Here is the foundation of the criminal predisposition. And here, when the defects in structure or function are a morbid inheritance, is the prime factor of the criminal proclivity inherent in the constitution. Besides these elements which enter so largely in the formation of the criminal constitution, there is another, which also is of great effect in conducing to the same result. It is a proverb that "idleness begets crime." It is a matter of indifference from what source the idleness comes. The truth appears to be that the anæsthetic effects of alcohol upon the brain are so universal, that the motor centers come under the prevailing inhibitory influence in common with others. Of course the final results upon these centers are precisely similar to those observed respecting the brain centers in general. The motor powers are repressed, until defect, is not only

habitual but is constitutional, and is transmissible through heredity.

Closely scanning the features of the criminal constitution, therefore, besides the palpable deficiencies in the moral sense, there is observed, very commonly, an insuperable aversion to regular labor, and especially hand labor. This is generally attributed to the absence of correct moral principle, and is believed to be one of the undesirable sequences of a low moral standard. There is an apparent incapacity for connected industrial pursuits. Criminals will often endure torture, and even death itself, rather than pursue a steady and regular course of employment. Punishments, rewards, advice and admonition, are wasted upon them. Sometimes they seem honestly to try. They begin with loud professions and solemn vows. Indeed they often plan elaborately, but fail miserably in performance.

I am inclined to think that those who look upon this disposition in the criminal as being wholly the outcome of a bad moral endowment, are mistaken. Man is usually spoken of as being comprised in the terms mental, moral and physical. I think the expression would best be mental, moral and motor; the physical partaking largely of the common animal, and even vegetative nature. Looking then, upon man as characterized by motor properties of nerve, equally with mental and moral properties, what is to forbid us from assuming that the same causes, which destroy or obtund the functions of the ideational and

moral faculties, also, and at the same time, debase and hinder the motor powers of the nervous system? This view would abundantly explain what otherwise seems inexplicable, namely, the frequent incapacity of the criminal to perform regular and continuous labor. We can now see how a large class of men are led, through hereditary constitutional predisposition, to pursue criminal courses in the strife for existence. Here is the explanation, in general terms, of the kind of influences that often produce the thief, the burglar, the forger, the counterfeiter, the perjurer, the gambler—in short, the professional criminal in all his varying qualities and proportions.

Of course this incapacity to labor, is the consequence of nervous defect allied to motive and will; or at least it is more evidently displayed in that way. The mere physical and brute muscular strength may not be wanting. The incapacity is not so much of effort, as it is of *continuous* effort.

Another point for consideration arises from a comprehensive view of the effects of alcohol upon the human constitution. I refer to the question of responsibility, as it is connected with criminal acts committed under alcoholic influence. I have no disposition to enter into the merits of the question very much at large. To indicate a reasonable course and direction of thought on the subject will be all that is here necessary.

To incur responsibility is to presume a cause of action. But cause is not really an “invariable ante-

cedent.” There are other elements of causation which introduce this particular kind of antecedent. Aristotle pointed out four separate elements of causation, which to perfect the idea of cause must co-operate. These he designated, 1st, material cause ; 2d, efficient cause ; 3d, formal cause ; and 4th, final cause. And all the philosophers since his time have concurred in his idea of several separate and distinct elements, which must enter into a just idea of causation.

Possibly an illustration of my meaning might be given in a more satisfactory manner in another direction. There is a principle which extends to all artistic and moral subjects that demands unity of design and unity of action in order to establish a claim to excellence. In poetry the unities must be preserved. So also in painting and sculpture ; and the same principle applies to all moral action where completeness and perfection are sought to be exemplified.

Now, if a crime is committed the constituents essential to which arise in part, in a generation anterior to him who commits the act, there must at least be a division in the total responsibility. The immediate actor may be held for his part in the transaction, but the ancestor should surely be esteemed responsible for the ingredients of the criminal act which belonged to him, and which were wanting in the perpetrator. The action really commenced in the progenitor, and in that proportion at least, the progeny—the criminal—should be excused. The several forms of causation

co-operate, it is true : but they do not co-operate in the same person. The unity of action, so far as the particular criminal deed is concerned, does not inhere wholly in the immediate actor.

This principle is applicable in the case where, for instance, some traumatic event produced the periodic advent of inebriety, with its unreasoning exhibitions of impulse springing from sensation. Here the criminal cannot be held accountable for the traumatism, or its unavoidable consequences. The same principle also is applicable where, from the inherited defects of moral or motor faculties, the criminal commits depredations upon the rights of others. The action does not begin in the criminal himself, and he cannot be esteemed to be wholly responsible. The action which made the crime inevitable (with certain surroundings) commenced in ancestry ; and the actor in the drama should be held to a reduced responsibility.

Upon a survey of the whole subject, it seems to me, that in the case of criminality growing out of alcoholic indulgence, society at large, that is, the State, has no right to shirk its proper share of responsibility. For the State can, if it chooses, remove the temptations to drink which beset the epileptoid inebriate. It can also remove that factor of irregularity in human conduct, alcohol, which operates in the destruction of honest and healthy motive, and, in the substitution for it, of the passions and lusts and appetites of mere sensuality.

No fair mind would think of carrying out literally, in cases of average health and opportunity the same principles which apply to the impulsive inebriate. He is not a person of average equable health, and his opportunities for good, are abridged by a pernicious and mercenary legislation, that is calculated to tempt and entrap him.

In chronic inebriety, when the moral faculties are overwhelmed, there is no adverse and bad nature really interposed. The passions and unrestrained appetites simply take possession of the intellectual faculties and direct and use them for selfish and dangerous and criminal purposes.





SECTION SEVENTH.

CHAPTER XVI.

Responsibility as Affected by Alcoholic Anæsthesia—Defect in the Muscular Sense—Unconscious Violence in Muscular Contractility.

The great importance of the subject will justify me in illustrating still further the influence of alcoholism upon morality and crime. The law of the land is, that “drunkenness is no excuse for crime.” This sweeping disposition of the legal responsibility that is associated with a large proportion of the criminal history of the country, appears to me to be open to serious objections. A reference to first principles will conduce to brevity in this discussion. Putting aside refinements, it may be said that there can be no consciousness, no rightful knowledge of self-personality without the intervention of sensation. The organs of sense must be in a healthful and wakeful condition, in order that the mind may become accurately conversant with external things, their right relations with each other, and its own relations with them.

A proper conception of all these relations is indispensable to correct ideas of the rights and duties of men, together with their responsibilities. But if, from disease, or injury, or some toxic agency the sensibilities are wholly overpowered, there can be no ideas of rights, no sense of duties, and no feeling or imputation of responsibility. It is evident that there may exist an intermediate state of mind, between acute and normal consciousness and complete insensibility.

There may be a state of mind and body in which the properties of sensation are defective or misleading ; in which the faculty of perception is faulty or mischievous ; in which the conception of duties and rights is imperfect and inapplicable ; and in which the standard of responsibility is modified or reduced.

Now the declaration is made that the effect of alcohol is to impair sensibility in the human organism, or materially to change its normal character ; and that therefore the responsibility for acts committed when drunk, is not parallel with the responsibility for acts committed when sober. The anæsthesia of alcoholism, as it impresses responsibility for crime, may be discussed from several points of observation. It may be considered as modifying the muscular sense ; or, as it hinders the alertness and comprehensiveness of mental activity ; or, again, as it imposes upon the individual under its prolonged influence, a life of mere automatism, which is inconsistent with personal independence, and incompatible with the power to

decide with perfect freedom between alternatives.

I will employ the term, responsibility, as meaning the extent to which a person, under the common rules of fair play and equity, should be expected to meet, in his own person, or his reputation, or his fortune, the consequences of his own acts. But the *own acts* of an individual are presumed to be those originating in motives of strict personality; and begun, and conducted, and concluded in accordance with such powers of judgment and will, as belong to the usual capacity and opportunities of the mind directing them. But if society, either by legislative enactments or otherwise, hinders the freedom of a mind already entangled in disease, by obtruding upon it some temptation that, from the nature of its infirmity, it is unable to resist or thrust aside, the conduct ensuing cannot fairly be held to be the *own act* of that mind. Equity says that the standard of responsibility should here be reduced.

In a former place, I referred to the unintentional violence with which a drunken man seizes upon the persons of others. I considered this peculiarity to be due to the condition of anæsthesia which affects men in a state of intoxication. Their tactile insensibility compels drunken men, in order to be assured that they are in contact with others, to grasp them with a considerable degree of energy. A man, benumbed by cold, will clutch his whip, or his knife, or any object that he handles, with uncommon firmness, so that he may be sure that he has it in hand.

But the insensibility, which it is a characteristic of alcohol to induce, may prove to be the possible source of much harm, through the unwitting infliction of severe bodily injury. As I believe real events are more instructive and satisfactory than theories, I will relate a case wherein alcoholic anæsthesia was the probable occasion of the application, unconsciously of so great muscular force, as to result in homicide. I will give a synopsis of a printed brief, detailing such facts in the case as were susceptible of proof. They are not only germane to the point in discussion, but they illustrate in a remarkable manner, the principles and facts that relate to the whole subject of inebriety.

In the year 18— a homicide was committed in a large city. A certain young man was charged with the crime. The following is a portion of the family history of the accused, and also is the history of the homicidal act. The young man's maternal great-grandfather was a notorious gourmand, an excessive drinker of alcoholic liquors—a confirmed inebriate. The maternal grandmother exhibited at an early age, the stimulant-craving appetite of her father. She would go on protracted sprees, lasting often for weeks; during which time she would visit common drinking resorts. While her position, when sober, was good, and her means ample to sustain herself in luxury in the palatial mansion in which she lived, she would consort with those much below her socially in her efforts to get drink. On several occasions her hus-

band placed her under the restraint necessary for medical treatment to save her life from alcoholic excesses. And such was her conduct and condition until her death.

Next we come to the daughter of the victim of the homicide, and the mother of the indicted youth. She, too, was afflicted from an early age with the inherited thirst for drink. She indulged her appetite to such an extent that she would become wild and delirious, and would wander out at night from her parents and her home, in inclement weather, unconscious of her condition, and apparently without object or destination ; and, after being absent for some time, would be led home unresistingly by any one who happened to recognize her. Prior to giving birth to her son (the accused), she was suffering such extreme nervous derangement and prostration that she would swoon many times per day.

The history of the brothers and sons of these women is substantially a melancholy repetition of their own story. It is unnecessary to transcribe it here, except in a single particular ; and that relates to the neurotic history of the accused himself, whose ancestry is in part set forth above. Retracing the ancestry of the accused on his father's side, we find the father was for years previous to, and for years after the birth of the accused, addicted to the use of intoxicating liquors, which he frequently indulged in to excess. The young man himself from early childhood, manifested a desire and appetite for inebriating drinks.

Between the ages of twelve and fourteen years he became an impulsive and periodic drunkard, with an overpowering propensity for intoxication. His excesses grew in frequency and duration. He was reckless and unhappy, with a disposition to roam and ramble about. On three different occasions when intoxicated, he suddenly, and without preparation, visited distant cities. This was when he was fourteen or fifteen years of age. After this, the drinking habit was continued at irregular intervals, he seldom abstaining as much as a month. He would pawn his clothes for the means to procure whiskey, after squandering his money. During these carousals his moral faculties seemed blunted, and gave evidence of decline. Although honest when sober and in his normal state, he would, when under the influence of stimulants, pawn the jewelry of members of the family to enable him to indulge his desire for whiskey ; and afterward notify his father, who redeemed the articles for him.

Before commencing a debauch he would be restless, and could not remain quiet in one place ; would gape and stretch, and appear quite unhappy. Sometimes he was low spirited and melancholy ; and he could not rest at night, and took narcotics to induce sleep. When intoxicated he grew very pale, with vacant, expressionless eyes, of a glassy appearance ; he had also nervous twitchings, clutchings of the hands, stammering speech and unnatural voice. His mind was often full of new business enterprises, but was

continually changing, and would pursue nothing long. At times he would not drink alcoholic liquors; at others he could not abstain. If he drank any, he was sure to continue drinking till he was drunk, worn out, and exhausted. He would often resolve to reform; and to carry out, and strengthen his resolution, he has joined several temperance associations, and taken pledges at different times, which he seldom kept inviolate more than a few weeks. When long without liquor he would grow nervous, uneasy and dissatisfied in his feelings; and when in this condition, if he got a taste of whiskey, he could not stop drinking until he had taken all that he could procure in any possible way, or was in such an exhausted state that he was sick and prostrate in consequence of his excesses. And previously to his arrest, this had been his drinking habit for more than six years. For a month before the homicide, he had been on a drunken debauch, and during much of that time was excessively intoxicated; and at no part of that time was he free from the influence of stimulants. On the night of the homicide, and the day and night preceding it, he was poisoned by excessive quantities of alcoholic liquors, having taken over fifty drinks that are known of, amounting in the aggregate to more than half a gallon of whiskey. In such a condition accompanied by an acquaintance, he proceeded to the house of his grandmother, in order to secure her watch by stealth, to pawn it for means to buy whiskey. This was in the evening before the ladies

.

had retired ; and the watch was on her person, and not as he had expected, under her pillow. He returned after taking more whiskey, to the house, which was his own temporary home. This was two hours after the first visit. He now obtained the watch, which he had often pawned before, and which had as often been redeemed by his grandmother when its whereabouts became known to her. The young man also secured some rings from her hand. In accomplishing this, it is supposed that the old lady, being infirm and asthmatic, and seventy years of age, was so handled as to prevent her from loud speaking and arousing the family ; and in consequence of such treatment, it is believed she was suffocated, and thus died. The accused then left the house, pursued his course of inebriety, pawned the watch, the owner's name being plainly written on it ; dealing directly and openly with a pawnbroker that knew him and his family well, walked about the streets as usual the day following, and was on his way to his grandmother's, and his own temporary home, the next night, when he was arrested. He withheld no fact from the officers arresting him ; told how himself and his companion went to the house to get the watch to raise money on it, but was ignorant of the old lady's death, and manifested astonishment on being informed of the fact. He was affectionate to his grandmother, and always exhibited sincere filial attachment for her—had never quarreled with her, and had been, in return, the recipient of all the love a grandmother usually lavishes on a favorite grandchild.

Depositions were taken with reference to the probable mental responsibility of this young man, who was indicted for murder in the first degree. These were obtained from several gentlemen who had made inebriety a special study for years. The character of the depositions was such, that, through their representations in part, the prosecution, with the consent of the court, ignored the indictment, and accepted, without going to trial, a plea of guilty to a mitigated offence, the penalty whereof was confinement in prison for a limited period of time.

Besides the universal kinship of humanity, men are imbued with traits of character which distinguish race, tribe or family. Yet these are subordinate to a personality and an individualism which impose a self-responsibility, and invite criticism. But it sometimes occurs, that the practical *isolation of person and capacity* which should distinguish the individual in particular, does not take place; or, at least it is not complete. The separation of ancestry from posterity is occasionally unfinished and undefined, to a degree that strict, and undoubted personal independence and responsibility are not attainable.

The young man accused, in the case under consideration, came into the world laden with the characteristics and incapacities of a profoundly neurotic ancestry. These were the reflections of organic and functional brain degeneration. They were an involuntary heritage. They were not trivial and frivolous. They were fundamental and wholly dominated—in

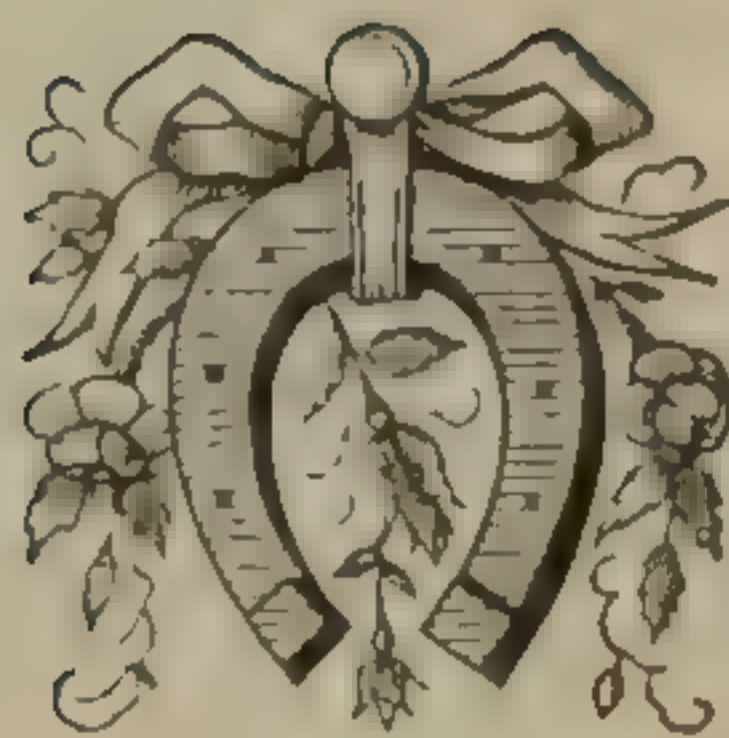
vital and essential particulars—body, mind and conduct. Whatever may have been the actual state of the mental and moral faculties otherwise, at the time of the homicide, there certainly was present a condition of anæsthesia. The muscular sense was defective through alcoholic influence; and the reasonable presumption is, that greater force was employed than could be noted by the perceptive faculties, or than was, in any manifest probability, intended. The accused was bound up through heredity in the misfortunes and diseases of ancestry. He was riveted to his progenitors by the infrangible continuity of brain degeneration. Isolation and personality, with a living sense of the *ego*, were physical impossibilities. Fair-play and equity would decide upon a review of the whole subject, that the conduct resulting in this homicide was not the *own act* of the perpetrator; and that he should not be held responsible in the same degree as persons would be who are not embarrassed with commanding hereditary neurotic imperfections. Thus anæsthesia may, through a destruction of the consciousness of the muscular sense, contribute possibly, to the most direful consequences. The inference is, that in a great many minor particulars, this indefinite conception of muscular capacity, may work much harm. It is useless to speculate in the case above described, upon the responsibility which attaches to the act of getting drunk. When the hereditary diathesis awakes in the presence of temptation, the restlessness of nerve, and inquietude of

mind under the constitutional disturbance, make the morbid sensibilities wild and desperate; and nothing will so speedily subdue the nervous storm, as the ever convenient and alluring alcohol. It is sought in order to give insensibility to nerve agony, and secure for a time, rest, repose. Alcohol affords oblivion for morbid mental troubles, and balm for the quivering nerves. The criminal who would,

“Raze out the written troubles of the brain,”

also seeks the anæsthesia and oblivion of alcohol. But the motives of disease should be carefully distinguished from the motives of remorse, or of criminality.





CHAPTER XVII.

Reponsibility as Affected by Alcoholic Anæsthesia, continued—Mental Alertness Restrained and Confined—Fixation of Ideas.

It is a principle in Natural Philosophy that a body projected into space will, considered abstractly, progress with an equable velocity, and in an undeviating line of direction, forever. But in consequence of the operation of modifying forces, temporary and local, this great law of nature is hindered, and the missile, through the resistance offered by gravitation and by the atmosphere, instead of a straight and steady flight into the remote places of the universe, describes an increasing curve, and speedily falls back to the earth.

In a manner somewhat analogous, an idea projected into the mind, has abstractly, a tendency to remain fixed. No matter whence its source—whether of perception, or of suggestion, or of the organic processes within the body itself, its disposition is to remain unchanged in its movements and possibilities, as long as the mind endures. But through the intervention of certain active agencies, an idea soon loses its ascendancy in the mind, and is thrust beyond the

range of attention. The modifying influences in this case are numerous. Yet a few of them are peculiarly distinct and prominent. Amongst these the property of sensation is of great moment. Through sensation, new perceptions originate, supplanting the old. The intrusions of memory, variously affected, also suggest new ideas and inaugurate new trains of thought. The end is, in the sound mind, that ideas continually give way under the pressure of renewed perceptions, associations and reminiscences; and being thus violently displaced, they fall at last below the mental horizon.

With reference to matter and the laws governing its conditions, I have nothing more to say; but respecting the fate of ideas in the minds of men, when they come under certain specific relations, I will offer a few facts and considerations. It is no doubt true, that the ordinary tactile sensibility, called the "sense of feeling," is more especially implicated than either of the other senses, when anæsthesia from alcoholic indulgence is present. The senses of sight and hearing, and even taste and smell, are considerably impressed. But the tactile insensibility is more obvious than the same defect in the other senses. So considerable indeed is the degree of anæsthesia affecting the sense of feeling, that severe injuries are frequently unnoticed, because they are not felt. The sensibilities become so benumbed that accurate sensations and clear perceptions are impossible. The consequence is, that the ideas which happen to be

uppermost in the mind, have a tendency to remain unchanged and continuous. A great nervous function, sensation, through the operation of which ideas might be modified or superseded, is lost, inactive. Ideas, in the same proportion that anæsthesia pervades the nervous energies, are beyond the control of the judgment or of choice, and they can be supplanted only with the greatest difficulty.

When it is considered that common sensation, fills a place really more extensive than that occupied by its own special duties ; that it is the chief arbiter, in questions respecting the accuracy of the other senses, it becomes clear how wide spread is the harm, which must flow from a serious interference with its powers.

Illusions, hallucinations, and delusions without number, would beset the soundest mind, were it not that the sense of feeling is ever ready to confirm or deny the correctness of the information derived from the eye or the ear, or from the senses of smell or taste.

Under many circumstances in life, the state of a mind wherein the ideas are fixed, or with difficulty are changed, becomes of the greatest moment with reference to a determination of the quality of conduct, and of the degree of responsibility which of right, should attach to it. In the earlier periods of a drinking bout, thoughts may seem to flow readily and with many pleasing changes. But very shortly, if the drinking is heavy, the state of anæsthesia supervenes. In this stage of inebriation, the fixedness of the ideas may be readily perceived in the

actions of the individual. He is pertinacious in demanding audience. For hours together he will reiterate some imbecile incongruity of mental association to all who will listen, mistaking it for wit. He will search for a particular thing or person with unflagging assiduity, during periods of time greatly in excess of the requirements of good sense or sober judgment. The leading idea in the mind is not readily changed or abandoned, because the facilities for the introduction of new conceptions are confined and injured by reason of the prevailing difficulty of producing additional perceptions for rational contemplation. Up to this time there is little or no harm flowing from the fixation of ideas. Mental operations are usually pleasing in their nature ; the feelings are agreeable, and the disposition generous and liberal. Assuming these statements to be true, their importance is enhanced in view of what next takes place.

It is known that in a subsequent stage of intoxication, the brain becomes poisoned and distressed through the accumulation in the blood, of carbonic acid, urea, and other noxious substances. The disposition is then wholly changed. Ideas are no longer agreeable or frivolous ; and the temper and feelings cease to be generous and playful. Yet the tactile anæsthesia remains, and the dominant ideas are still fixed and sluggish, and they are not readily abandoned or modified. A prevailing nervous distress now engenders a sullen disposition ; and hate, rage and revenge color the leading thoughts and feelings.

It has been said that “rage is a brief insanity.” It is also a very dangerous insanity. There are few people who have not rejoiced that rage is short, and that strong emotions soon pass away. There are few who do not feel that were it otherwise, they would, most likely, be called upon to lament some deed of violence, that rage and fury had tempted them to perpetrate. The law recognizes the insanity of rage, when it materially reduces responsibility for the acts committed in a sudden passion.

But the mind driven to fury while under the influence of alcohol, occupies a very peculiar position. It is possessed with madness indeed, but not brief in duration. It is a madness that, from the nature of anæsthesia and of alcohol, the mind is powerless to assuage or overcome, with ordinary facility, or in a reasonable time.

In illustration, I will relate the following: One H——, a young man of my acquaintance, shot, and killed a person with whom he had been quarreling. Both parties had been drinking heavily for a number of hours. Had H——, perpetrated the deed in the midst of dispute, the law would have exonerated him in a considerable measure from responsibility. But it so happened that there was a lull in the quarrel before the final catastrophe. The actors had become separated. H——, went out and walked around two or three squares, during which time a companion placed in his hand a revolver. Soon thereafter he returned to the presence of his enemy, and shot him

down—firing twice. There was no new controversy indulged in ; and the man who was fatally hurt seemed desirous to get away.

H——, was indicted for murder in the first degree. In consideration of the time occupied by him in walking the street, and away from the presence of his antagonist, it is the opinion of many that he was guilty of premeditated murder. If it is true that the law is right, in that it would hold H——, guilty of manslaughter only, if he had killed his opponent at the moment when he first left him ; then it is also true, that the law is wrong and unjust in holding him guilty of a greater offence, for committing the unlawful act immediately upon his return to the scene of the original trouble. The reason for this conclusion is, he came back in precisely the same state of mind, as that in which he departed.

Let us examine a little more particularly the elements of this case. When H——, went out upon the street, and away from his opponent, he was, without doubt, under the influence of alcoholic anæsthesia. His motives, thoughts and ideas, were to a considerable degree, fixed and established ; and they were beyond any natural and rational power of modification or change. Besides this toxic disability, the entire functions of the nervous system were under the predominant control of alcohol. Every expression of the countenance was alcoholic. The movements of the eyelids, the crooking of the finger, the changing positions of the limbs were all alcoholic ; and by

no exertion of the will or of automatism, could these motor functions be brought into a semblance of a normal and reasonable appearance. They were all *alcoholic*.

In a parallel way, alcohol assumed with irresistible power, the control of reason and morality. Reasoning, motives, judgments, and mental decisions were alcoholic; and by no process of the intellectual powers, could they be brought into a natural exhibition of the normal and healthy state. Every nervous function, motor, rational, moral and volitional, was inexorably alcoholic. The time that elapsed between the separation of the two men, and the return of H——, could not have exceeded half an hour. It was probably about twenty minutes. When H——, returned his anæsthesia still prevailed. His ideas and intentions were, most likely, still fixed and unaltered; alcohol was still surging and raging through the capillaries of his brain; compelling all his powers, mental and moral, to bow to its supremacy. Is it not preposterous to claim that under such circumstances, a mind may “cool down,” and its responsibility become radically changed in a few minutes? The exigencies of expediency may possibly excuse the law, as it is applied to the responsibility belonging to the drunken state; but equity never will.

If common anger is a brief insanity, invoking the merciful consideration of the law, I cannot perceive any just reason why the settled fury attending the advanced stages of drunkenness, should not be en-

titled to the same consideration. In the latter case the will is innocent of the inception of the madness; and the mind is also incapable, in consequence of the toxic condition of the body, of righting the wrong state of motive and disposition. In the heat of passion it is claimed justly, that there is no opportunity for reflection, and the calm and rational consideration of consequences. In a state of mind wherein passion is morbidly continuous, there is also no available point where cool reflection can be introduced, or the consequences of conduct calmly canvassed. In true insanity, from undoubted brain disease, a long and fixed hatred or rage is esteemed to be good reason for an abatement of responsibility, or an entire release from it. The belief is reasonable, that functional incapacity of the brain as from alcoholic anæsthesia many present the same symptoms and disabilities as structural lesions, and as long as it remains, it should receive similar privileges and exemptions.



CHAPTER XVIII.

Responsibility as Affected by Alcoholic Anæsthesia, Continued—Intellectual and Moral Faculties Weakened and Benumbed—Inability to Discriminate Between Right and Wrong, Disguised by Automatism.

Having discussed in another connection the destruction of the physical basis of the moral nature, including the *ego* with the sense of personal identity, as it is accomplished by the toxic power of alcohol, I will proceed to make some further application of the principles involved in the subject. When the material instruments of the mental and moral powers are, for a protracted season inhibited in function by the anæsthetic, or paralyzing property of alcohol, great and fundamental disturbances must ensue in the manifestation of mind and morals. Clearly pronounced anæsthesia withdraws the nervous centers from independent and spontaneous activity, and compels the mind to assume in all its essential functions, that inferior plane of exhibition, which is simply routine, imitative, habitual, automatic. It is impossible for a mind in which the feeling of the *ego* is weak, and the sense of personality is wavering or destroyed, to so establish its own relations with mor-

ality, as to be capable of distinguishing accurately between right and wrong. To perceive what is right requires alertness, and the power of ready and just discrimination in the mental operations. To recognize wrong, not only requires the same mental properties, but also a sensitiveness of the moral faculties, which is wholly inconsistent with the obscurity and the sluggish movements imposed by alcoholic anæsthesia.

It may be well to note the meaning of words, and particularly the difference which attaches to the terms habit and automatism. For facility of speech they are often employed interchangeably. But habit is simply a custom of convenience, into which the sound mind is very prone to fall. It does not rightfully imply any neurotic proclivity in mind or morals. Habit therefore may be changed or abandoned by an effort of will, more or less determined; and it is always in some degree subject to the checks and hints, and the general supervision of the mental and moral powers. Automatism on the other hand, while exhibiting the external features of habit, is in reality an enforced condition of mental life, brought into existence through radical incompetency or defect in the physical instruments of the intellect and sensibilities. It is not susceptible of change or modification by the exercise of any reserved power belonging to the imperfect mind through which it is manifested.

Respecting certain motor activities, very often denominated habitual and also automatic, such as walk-

ing, performing on musical instruments, and displaying skill in feats of slight of hand, the truth seems to be, that they are properly neither habitual nor automatic. These activities belong mainly, to the essential properties of the motor system. For they depend chiefly upon an educated muscular sense, and their actual existence is subordinate to the operations of mind in a limited degree only.

The usual questions propounded in courts of law respecting the moral capacity of criminals, are as follows; "Could the prisoner distinguish between right and wrong? Did he know when he committed the act that he was doing wrong?" The importance of a familiarity with all the terms employed in these questions when applied to ascertained facts in criminal cases, is apparent when it is remembered that they embody what the courts in England and America insist shall be considered as the only test of legal responsibility. But the power of discriminating between the finer shades of the moral qualities, must be weakened when consciousness is defective; and it is always defective in every grade of anæsthesia. When it is considered that habitual anæsthesia may become to a certain extent constitutional and hereditary, we are compelled to admit that the transmission of an alcoholic neurosis, may eventuate in the establishment of a mental condition which is incompetent to determine the distinctive qualities of the moral attributes. That is, it may eventuate in the founding of a criminal constitution through the laws of hered-

ity. I believe that consciousness, and an accurate sense of personality are nearly convertible expressions. Hence the declaration that, unless the feeling of personal identity is clear, it is difficult to bring self into satisfactory relationship with the delicate and refined principles of the higher morality. I make a distinction however, between the purely rational process of discriminating as to the nature of moral qualities, and the living and the appreciative feeling of the same qualities. When the distinguishing characteristics of right or wrong are assimilated in the sound mind, they become motives to conduct; and this is very different from the cold and formal admission of their existence, without feeling their warming and moving impulses.

The knowledge of right, abstractly and through reason only, and the knowledge of wrong abstractly, may be present, and yet the power of actively discriminating between the two, the power of using the reason and the sensibilities together, in a comparison or analysis of the elements of right, as relates to the elements of wrong, may be wholly absent. There may exist, indeed, an utter incapacity to enter into such a comparison between the two attributes, as will be applicable to an assured determination of the character of intent and responsibility. Relevant to this subject are the words of Sepilli: "We must remember that cerebral activity is manifested under two distinct aspects—that of the conscient and of the inconscient. The conscient activity, or conscious-

ness, is constituted of knowledge possessed by the *ego* of its own acts—that which happens within itself, which happens in its relations with the external world. On the contrary, in the inconscient activity of the brain, denominated also automatism, all those actions enter in which the *ego* takes no part, or is aware of any ; but these latter are combined and directed so as to resemble those which the *ego* perceives, wills and directs.”

Here is explained the difference between responsible and automatic life. Not only is the fact recognized that normal life must be founded upon a conscious *ego*, but the fact is also recognized that a life founded upon an inconscient *ego* may resemble the former. Human conduct directed by a conscious *ego*, comes of a capacity to discriminate between right and wrong ; and it is therefore amenable to the requirements of responsibility. But conduct resting upon automatism, into which the conscious *ego* does not enter, and which is incompetent to discriminate between right and wrong, cannot be esteemed a proper subject for ordinary responsibility.

The conclusion now forces itself upon the attention, that it is exceedingly difficult very often, for a witness to answer the usual questions propounded by lawyers respecting the ability of one charged with crime, to discriminate between right and wrong. The imperfections in sensation, and the inhibition on the moral faculties established by alcoholic anæsthesia, so embarrass the mental powers, as to compel them to assume the characteristics of automatism.

It will be observed that automatism is not incompatible with a possible activity of a morbid *ego* ; for instance, an *ego* born of delusion or hallucination. This *ego* is of course, out of normal relationship with its surroundings. It is also beyond the regular control of the mind, because its morbid origin is not under the dominion of the will. As long as the defective mind is led by pattern, custom, or imitation, its movements are purely automatic. But, when it is brought by circumstances to assume the authority of a master, it is incapable of directing conduct in rational channels. The defective mind, when it is no longer directed, when in fact it directs, is at once recognized as morbid. Its positions of independence are exaggerated and impracticable. The automatic smoothness of a mind injured by alcoholism, as well as by any other agency, really disguises its incapacity for independent thought, and for the exercise of a sound will. It will not be correct to infer invariably, that, because the ordinary life of a man resembles the life of men in general, he can therefore discriminate between right and wrong under all circumstances ; or that he knows of a verity he is doing wrong when he commits an unlawful act.

Without expressing an opinion on the merits involved in it, I will relate a case which will tend to illustrate the principle I am endeavoring to establish.

A certain person, one I——, shot with a rifle and killed a civil officer, who in the regular process of law had levied upon some horses. The constable

when shot was in the act of driving the horses away, with an intent to sell them in satisfaction of a judgment obtained against I—— in a suit for slander. The officer was acting in his proper capacity; and he had no other interest in the transaction.

I——, was a man of considerable pretension to intelligence, and had a fairly good education. He habitually bought and read the better class of periodical literature. He was in good pecuniary circumstances, owning a valuable farm; and he followed mainly, the business of farming. He was unmarried and about forty-five years of age.

In conducting his farming affairs, I—— displayed correct judgment. The same may be said as to his conduct in rearing and selling cattle, and also respecting his ability in manufacturing sugar from the sap of the maple—an industry extensively practiced in his vicinage.

In things personal to himself, and out of the range of a community of thought and act, he was extremely eccentric. He behaved with grossness and violence when it was proposed to open a neighborhood singing school with prayer. Once, while prayer was in progress he burst into the room, and conducted himself in a boisterous, rude, and noisy manner. And this quarrelsome conduct he kept up for a considerable period of time, to the great scandal of the people; and it called forth at last the interposition of the law.

He burned some fences belonging to a relative, because, desiring to have a new road-way opened,

he was unwilling to wait for the legal establishment of the highway, and the removal of the obnoxious fences in due course.

Some years previous to the homicidal act, I——. had been the subject of a judicial inquest respecting his mental soundness. He was adjudged insane; but as the proceeding seemed to be intended, rather as an admonition to him, than anything else, he was not placed in confinement. He never afterwards failed, however, to use the verdict of lunacy as a prospective shield and defence, when he became threatening and troublesome.

On one occasion a written paper was found pasted upon a church building. This was a notification that unless certain church members conducted themselves in accordance with some specifications set forth in the writing, the house would be destroyed by fire. The warning was not heeded, and the church edifice was in due time burned to the ground. Suspicion rested upon I——, at the time, but proof was never obtained in the matter until the trial for murder was held, when evidence was secured which justified the suspicion against him.

While in prison awaiting his trial for homicide, I——, displayed great acuteness in so manipulating the lock upon the jail door that the bolt, instead of shooting within its guard and fastening, shot outside of and behind it, where it was held from observation by a fender of blackened tin which he had provided. The prisoner walked forth into the outer world. He

made no effort to flee the country, but after remaining partially concealed amongst his friends and relatives for a few days, he was quietly conducted back to his old quarters. In speaking of this escapade, I——, intimated that the whole transaction was to show his keeper and prosecutors how infinitely he was their superior in intelligence, and at the same time indicate the utter contempt in which they were held by him.

It was apparent that in every thing concerning the person or property of I——, wherein his mental faculties were lifted from the common current of automatism, he displayed weakness in judgment. His convictions were assumptions without adequate intermediate ratiocination ; while his impulsive determinations were immovable, as well as impracticable. The man seemed to be incapable of independent rationality ; while his feelings were implacable, and his will was morbidly stubborn and obdurate. He possessed the usual belief of neurotic and chaotic minds, that his rights and opinions were systematically opposed and checked through motives of malignity, and tyrannical oppression. He believed that the legal judgment against him was obtained by fraud, and by the malevolent principles which he imputed to courts and lawyers generally.

The effort was made to have it appear that because this man was calm and successful in his automatic life of farming, and cattle raising and sugar making, he therefore was perfectly competent to act with ra-

tionality and responsibility in his personal and independent life. It was argued that because his automatic life "in which the *ego* takes no part nor is aware of any" was dispassionate and resembled rationality, therefore his independent and turbulent, his neurotic and impulsive life was a sham, a lie, and a crime. "Does he carry on his farming affairs well?" "Yes." "Does he display good judgment and capacity in raising and dealing in cattle?" "Yes." "Then it is idle to contend that he was not in possession of good and rational powers of mind in all circumstances." This was the argument.

Now when disease reaches a certain point in the brain, or when some toxic power becomes paramount, or when some sudden and strong emotion arouses a latent neurosis, assuming the domination of motive and of conduct, the ordinary appearances of automatic life cannot illustrate, much less establish, the character of the responsibility involved. The motive and conduct originating in brain disease or in toxic impressions, occupy a level that is different from automatism; and one of these grades of mental and moral exhibition, cannot by any right process of reasoning, or any rule of justice be brought forward to exemplify and interpret the other grade.

The "right and wrong" test of responsibility is of undoubted value, but it is not infallible. Like other tests, it should always stand subject to explanation and impeachment. It should be examined by the light of circumstances, and become the object of

severe inquisition, and of undoubted preponderance of proof. It should never be admitted unsupported by collateral evidence—by evidence converging from other lines of inquiry. And especially it should never be invested with the force of demonstration, as though it were impregnable and beyond the reach of disputation.

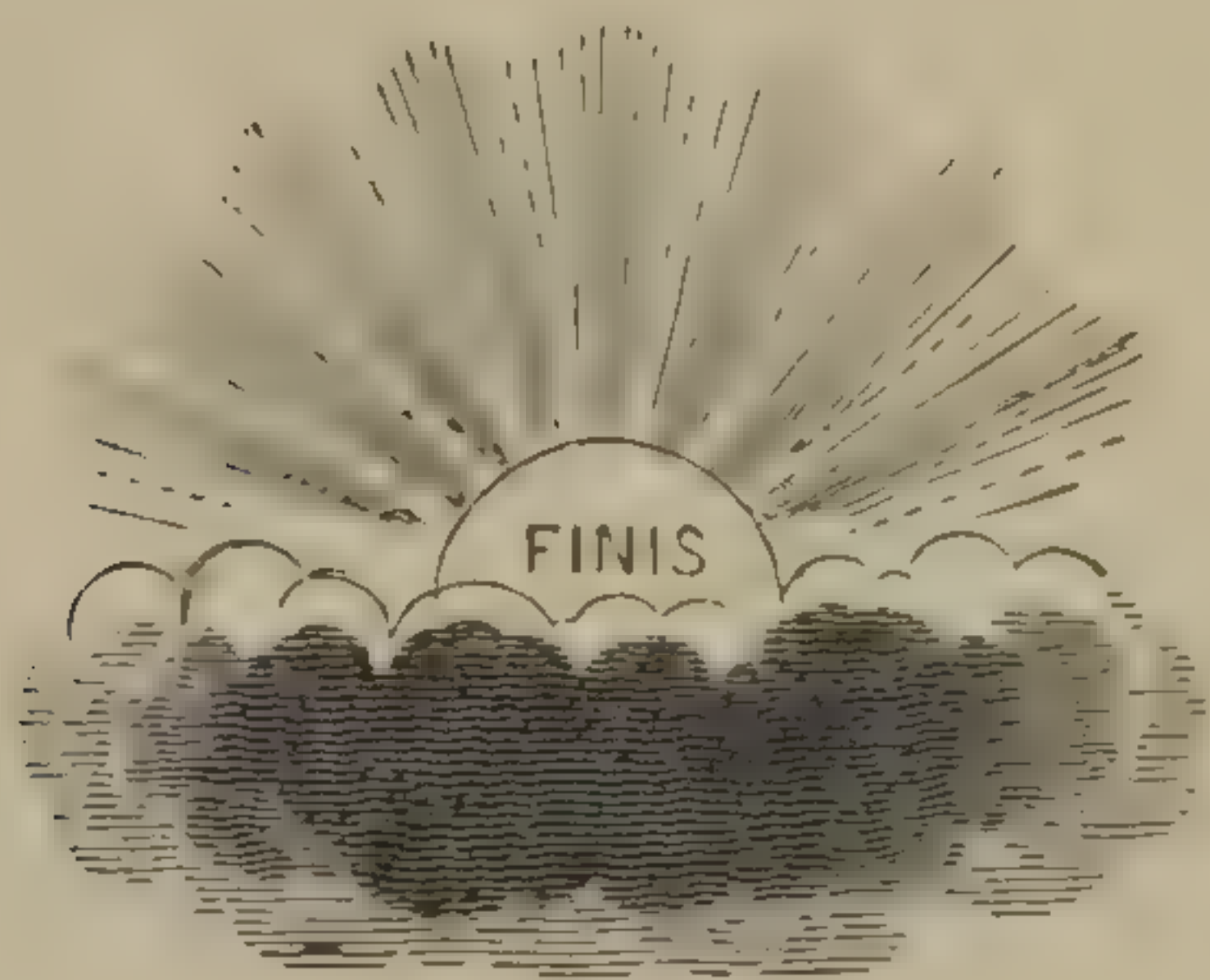
To invest a drunken man with immunities more or less complete for unlawful and criminal acts is, after all, to give a very imperfect and one-sided conception of his actual personality. The radical incapacities which affect the moral and legal accountabilities of the drunken state in any given direction, should equally apply to the responsibilities of the same state in all directions. If the principles hitherto advanced are true only in the main, if intellectual imbecility, and moral perversity, and motor inefficiency are proven to be conditions inseparable from alcoholic intoxication, it must follow that the liabilities and privileges of civil life are incompatible with drunkenness.

When the chief functions of animal life become hindered and impracticable, the subordinate capacities likewise cease to operate, and the body dies. So also, when the leading capabilities essential to a display of a complete and useful citizenship, are dwarfed and paralyzed by alcohol, all the subsidiary prerequisites to civil existence perish.

The drunken man, controlled by the ascendancy within him of a power foreign to human nature, and

inconsistent with right reason and sober morality, is incapable of discerning clearly, what is true, or what is right. He should therefore be esteemed incompetent to give testimony under oath. Contracts entered into by him should be void in law. Obligations assumed should be declared legally inoperative ; and all his acts, personal or official, touching the rights of persons or things should possess no quality of legal force. Where a power is given or assumed to act for others, the law should itself raise the question of mental competency as respects alcoholic influence in the premises. This doctrine is applicable impartially to the authority inherent in citizenship, to the decrees and decisions of courts, and to the mandates of power everywhere.

The incapacities of inebriety are fundamental. No substitutes are practicable, and no amendments will avail. Drunkenness is, in every essential particular a condition of civil death, and it would seem best that it shall be so construed by the law of the land.





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